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CONSUMERS RESEARCH

Bulletin

February 1948

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CONSUMERS' RESEARCH

Vol. 21 • No. 2 **BULLETIN** February 1948

Off the Editor's Chest

DURING the past few months there has been a concerted drive to restore to the Federal Government the power in some form or other to fix prices and ration or allocate commodities that are reported in short supply. As CR subscribers of several years' standing know, we have over the period of the last decade cited a considerable volume of evidence to show that price fixing, whether it be carried out by manufacturers, as under the unfortunate economic experimentation of the NRA period, or present-day "Fair Trade" laws, or by a government bureau such as the late OPA, inevitably works to the consumer's disadvantage.

When one is exasperated by the fact that a local merchant takes advantage of a lack of effective competition to charge more for his merchandise than prices prevailing in a distant city where competition is keener, it is perhaps natural to wish there were some big, friendly government agency that could be called upon to *make* him cut his margins and reduce his prices. The desire to see a powerful champion crack down on those who take advantage of others is instinctive in nearly everyone. The difficulty is that those who are given the authority to fix prices have the power to increase them as well as lower them. Time after time when the OPA set a maximum price for a commodity, the maximum promptly became the minimum, for the manufacturer or distributor who was charging a lower price saw no reason why in an era of scarcity he should not get all the OPA regulations would allow; his increased price became respectable, *because it was governmentally approved.* This familiar phenomenon was called by OPA economists "bumping the ceiling," and it soon became a recognized fact that when the ceiling price was "bumped" for a sufficient length of time the approved maximum-minimum price was pushed even higher.

There is some disposition on the part of the OPA's defenders and present proponents of a return to some sort of price control to argue that the recent price-fixing experiments of the federal government represent a forward-looking venture in caring for the welfare of the citizenry, that these experiments evidence imperfect but sound progress in the direction of more equitable distribution of commodities. In a previous editorial we referred to consumers who lent their support to propaganda drives for the return of federal price control as "unthinking"; to this we must regretfully add that they are uninformed, as well, in believing that such policies are progressive. They are more aptly to be termed retrogressive, a return to ancient ways that have been tried out through the centuries and invariably discarded, because ultimately it became evident that they failed of their purpose, so that the cure became worse than the disease.

As all who have basic training in economics know, price control, rationing, and allocation of materials, services, and commodities are to be classified as *sumptuary legislation.* This is the term, according to the Encyclopaedia of Social Science, which is applied to ordinances regulating

(Continued on page 26)

Scientific and Technical Experts and Editors: F. J. Schlink, R. Joyce, M. C. Phillips, Helen P. Alleman, A. R. Greenleaf, Charles L. Bernier, and Dwight C. Aten. Editorial Assistants: Mary F. Roberts and B. Beam.

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¶*CR will, of course, gladly change addresses for men and women in the services as often as required by changes in station and other circumstances.*

★★★For a brief cumulative index of 1948 BULLETINS preceding this issue, see page 26.

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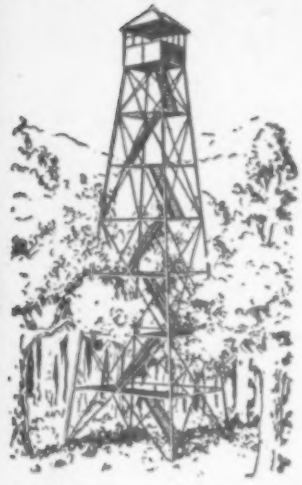


The Consumers' Observation Post

RETAIL PRICES on identical brands of men's suits vary considerably depending on where they are sold, reports Men's Wear. It was noted that one model, selling for $85 in New York, was priced at $59.90 in Lincoln, Nebraska. Still another, priced at $47.50 in New York, sold for $38.75 in Lincoln, while a third was $37.50 in New York, $32.50 in Lincoln. It is a pity that prospective suit purchasers cannot do a little comparative shopping. Unfortunately the carfare from New York to a city where clothing prices run lower would more than eat up the saving, unless one could stock up for a few friends, when traveling.

* * *

WHAT YOU EAT may have an important effect on your personality. Insufficient amounts of vitamin B complex (found in liver) and protein (meat, eggs, cheese, and milk) are considered to be a cause of severe emotional disturbances, tendencies toward hysteria, hypochondriasis, and depression. Dr. Charles R. Henderson of the Army Medical Nutrition Laboratory, Chicago, and his associates report that when protein and vitamin B complex factors were supplied in adequate quantity, the subjects under observation returned to normal behavior.

* * *

IS THE COST OF DISTRIBUTION TOO HIGH, was a question asked in connection with a recent study made by Fortune magazine of the Bendix automatic washer. Priced at something like $240 to the consumer, Bendix nets the distributor $10 on each machine, and the company makes a profit of a like sum. The dealer's share is $100 on each machine. Out of this slice he has to pay $10 for cooperative advertising and other items, and any commissions to his salesmen. The large slice of the price that goes to the dealer undoubtedly accounts for the fact that the Bendix is found on display in so many appliance shops throughout the country.

* * *

DENTIFRICES will no longer bear the seal of approval of the American Dental Association. The organization has discontinued the granting of a Seal of Acceptance to dentifrices that have met its standards. Looking over the list of A.D.A.-accepted dentifrices, it is significant to note that one of the recent lists of A.D.A.-accepted toothpastes carried not a single nationally-known, extensively-advertised toothpaste. In that connection, it may be noted that truthfulness in advertising is one of the A.D.A.'s requirements for acceptance.

* * *

WOMEN WHO EXPERIENCE FOOT STRAIN, particularly when they wear high heels, may have a deformity known as "metatarsus primus varus," according to Dr. Frances Baker of the University of California Medical School. Ordinarily the difficulty is recognized by an inturning big toe, but in certain cases the deformity can be detected only by use of X-rays. Sometimes the condition can be remedied by wearing broad, flat shoes such as sandals and wedgies. Men, too, are subject to the same deformity, but since they customarily wear broad, flat shoes, they do not experience the discomfort caused by high heels.

* * *

PITY THE PLIGHT OF THE ELECTRICAL APPLIANCE DEALER who not only sells appliances, but must make them work when the manufacturer does not have them properly inspected and adjusted before they are shipped out. Another difficulty is failure of manufacturers to send operating instructions and adequate servicing information. The magazine Electrical Merchandising recently dis-

cussed the difficulties of a dealer who sold a farm freezer and then discovered there was no operating chart for it. He had also received for sale six water systems, not one of which was wired so that it would run. In attempting to service one which gave trouble, he finally located a burr on the starting switch which threw out the circuit on starting. Proper inspection would have eliminated this defect before the appliance was shipped from the factory. Comes the day when there are more products than customers, these defects will result in the shift of purchases to other brands whose manufacturers are more careful and more considerate. Farsighted manufacturers will begin now to remedy these "bugs" and defects, and see that customers inconvenienced by them are promptly and fully taken care of when they complain.

* * *

SALES OF SYNTHETIC VITAMINS are reported by the Drug and Cosmetic Industry to be declining, with the sales of one producer down 30% in recent months. According to one explanation, radio, magazine, and newspaper advertising has been abandoned and vitamins are now sold chiefly on physicians' prescriptions. We venture to suggest that a still better reason for the drop in sales is the fact that people, who once rushed to the corner drugstore to buy, have discovered from actual costly experience that the vitamin preparations were not the magic cure-alls that the advertising made them out to be.

* * *

SHOE PRICES are going to be higher this spring, for most manufacturers are going to charge more for their products to cover higher leather costs. Whether prospective purchasers will pay the increases or not bothers the retailers considerably. According to Business Week, retailers would like to cut off all buying as a protest, but are afraid that a lot of their customers are willing to pay the higher rates. One shoe trade executive prophesies, however, that there will be a lot more shopping around for lower-priced shoes.

* * *

NUTRITION plays an important part in determining your health and vigor. Dr. C. Ward Crampton points out that whether a man of 60 is as vigorous as the average man of 40 or miserable and decrepit depends largely on his diet. The doctor holds that most people of middle age, and over, often get too little calcium, iron, and protein and too much starch and sugar. This view on the importance of protein in the diet has been reinforced by findings of able researchers Anton J. Carlson and Frederick Hoelzel of the University of Chicago, who discovered in animal experiments that an omnivorous diet containing 35% protein, chiefly from meat, was more conducive to growth and longevity than a vegetarian diet with 30% protein derived chiefly from grain.

* * *

DISCOLORATIONS OF THE SKIN caused by the medicinal use of solutions such as potassium permanganate and of gentian violet are often unsightly and difficult to remove. An ingenious method is suggested by Dr. Theodore Cornbleet of Chicago which involves the use of chemical depilatories. Any one of the sulfide depilatories will effectively remove such a stain if applied to the skin and allowed to remain for about half the time called for in the directions for removal of superfluous hair. Users of the sulfide depilatories should, of course, bear in mind the fact that these products must be used with caution because they are caustic and may cause irritation on tender skin. (None should ever be applied in the region of the eyes, or on any abraded, injured, or diseased area of the skin.)

* * *

TOO MANY GADGETS on electric ranges keep prices high and act as a decided brake on consumer buying. According to the New York Times, it is becoming increasingly difficult to sell de luxe model ranges in the $300 price range. Prospective purchasers have indicated that they can forego these ranges with automatic timers, fancy back splashers, and similar equipment and will wait for a standard four-cooking unit stove in the $150 to $200 price range.

* * *

DENTAL CARIES (tooth decay) can be prevented by drastically cutting down on the amount of candy, sugar, and other sweets that one eats. Experts have pointed out that every time sugar or something sweet is eaten, there is a short

(Continuation of this section is on page 29)

Automatic Washing Machines

MANY of our subscribers have been waiting, not too patiently, in some cases, for the results of tests on automatic washing machines. These tests have been in progress since last March, but the difficulties encountered in keeping several of the machines in good operating condition have been serious—so serious indeed that it is debatable whether consumers should take the risk of purchasing an appliance of this type until the manufacturers have done more work in eliminating the "bugs" (which are always a problem with new types and models of any complex appliance).

To make the matter concrete as to one very well-known make of automatic washer: Tests were started in March; on April 2, a serviceman came to check the installation and performance (in response to a telephone call made on March 20). On May 20, during a test, the gasket below the clothes basket started to leak and required replacement. At the same time it was noticed the motor was not coming up to speed properly; the motor was then replaced, but the new motor, too, did not perform properly. A long delay then ensued and it was not until *September 3*, almost six months after the machine was originally received in the laboratory, that a satisfactory new motor was provided and the product put again into condition for tests. This example had been reported in some detail because it is typical of the difficulties being experienced by owners of some of the automatic washing machines. Consumers would justly be very much annoyed, after spending upwards of $200 for a washer, to have it laid up for six months or more with their investment useless and their washer space occupied by a machine that performs no function.

* * *

Preliminary results on six automatic washing machines, now undergoing tests, indicate that the automatic washers that use a revolving drum such as *Bendix*, *Launderall*, and *Laundromat* are much less efficient in removing dirt from clothes than the automatic machines using an oscillating agitator, i.e., *General Electric*, *Blackstone*, and Sears' *Kenmore*, and the newer method of plunger agitation as provided by the *Frigidaire*. Differences in washing effectiveness between the *Launderall*, *Laundromat*, and *Bendix* were small, and the results obtained for all were only fair. The *Blackstone*, *General Electric*, and *Frigidaire* all gave efficient cleansing; the Sears' *Kenmore* gave the highest washing effectiveness of any automatic machine in the group. Of the six machines being studied, only the test on the Westinghouse *Laundromat* has proceeded far enough to permit a detailed report. The complete cycle of this machine was as follows: Wash 15 minutes, drain and spray-rinse 1 minute, spin 2 minutes, rinse 7 minutes,

Westinghouse *Laundromat*

drain and spray-rinse 1 minute, spin-dry 6 minutes, for a total of 32 minutes.

During the spin-dry part of the forty-seventh cycle of the endurance test, a serious failure occurred, apparently because the nut which held one of the snubber bolts in place backed off permitting the snubber and leaf spring to which it was attached to drop off. This threw the tub out of alignment, and since it was rotating at high speed (in the spin-dry cycle), considerable vibration developed. Before the machine could be stopped, the tub assembly broke loose and dropped to the bottom of the machine. The manufacturer's representative, after inspecting the machine, was of the opinion that the machine should be returned to the factory and replaced with another one.

The new Westinghouse machine furnished was a *Model C-3 47* and differed slightly in the following respects from the *B-3 47*. The later model was equipped with a more suitable type of motor. The thermostat for the "cool" setting provided a stepped instead of continuous adjustment of water temperature. A single combined Temperature-and-Time dial was used instead of two separate dials, and the water cut-off mechanism was slightly different. The later model also used slightly more water in the spray-rinse parts of the cycle.

The Westinghouse *Laundromat* has tentatively been rated *B. Intermediate*, but in this rating it is necessarily assumed that the manufacturer will take drastic steps to render firm and secure the tub-suspension which had the weakness reported above.

B. Intermediate

Laundromat, Model B-3 47 and Model C-3 47 (Westinghouse Elec. Corp., Mansfield, Ohio) $277.60. Fully automatic, rotating-cylinder type. Maker's capacity rating, 9 lb. of dry clothes. Cabinet 37 in. high, 31 in. wide, 26 in. deep, finished in white lacquer. Had toe recess at front of base. Upper half of front slopes back at an angle of about 30° with vertical, and contains a metal door approximately 16 in. square which gives access to the tub through an 11-in. diameter opening covered by a round molded glass "look-in" door which in turn is equipped with a 2 in. x 3 in. soap chute with spring-operated metal door. Tub of black and white mottled vitreous enamel. Tub, inner basket, motor, pump, and some automatic mechanism were suspended as a unit by 3 coil springs and held in position by 5 flat springs. Machine did not require permanent installation to water drain and electrical supply. On "Regular Hot" dial setting, average amount of water used by *Model C-3 47* for 1 complete cycle, 18 gal. Washing effectiveness, fair (approximately the same as *Bendix*). Effectiveness in drying clothes, excellent. (Considerable vibration and noise during this operation due to manner of suspending and positioning of tub.) Washer broke down during endurance test (see text). Operation of "look-in" door, somewhat inconvenient as knuckles of hand collide with soap chute, due to insufficient clearance. Control dial was difficult to operate, requiring a force of 17½ lb. to push in, 7½ lb. to pull out. This dial was not securely fastened, coming off twice in operator's hands during test, causing temporary loss of small intricate assembly parts. Some leakage of water at rubber gasket of "look-in" door. Results of test for wear on clothes and endurance run, which are not yet completed, will be reported in a forthcoming issue.

Experiment Station and other Technical Bulletins Desired

CR receives quite a number of technical and scientific publications of the various universities and experiment stations and would be glad to receive more. Unfortunately it is quite difficult to obtain knowledge of such bulletins when they are not widely circulated, because, so far as is known, there is no agency which receives all of these, and indexes and abstracts them for the technical reader.

It will be a valuable service if subscribers who are on the staffs of institutions which prepare and publish such bulletins will take steps to have the name of *Consumers' Research, Washington, New Jersey*, added to the mailing list for all publications of this type. The kinds of particular interest are college and university scientific and engineering bulletins, and agricultural experiment station bulletins on subjects of consumer interest. A few examples of such publications are: The Research Engineer, a monthly bulletin of Georgia School of Technology; Home Laundering Bulletin 432, by Jessie E. Richardson of Montana State College Agricultural Experiment Station; The Jeep as a Farm Truck-Tractor, by L. J. Smith and O. J. Trenary of Washington State College Agricultural Experiment Station.

The Used Car—
Should it be Traded in, or Made to Last a Few Years Longer?

Today's "Automotive Economics"

A FEW car owners who have had about two years of use of a post-war automobile have driven enough miles to begin thinking about their next car, and many owners of older cars are wondering when they can afford a new one. Thus the old problem, reminiscent of pre-war years, of the best time to trade in a car arises again. The wise answer is, for most consumers: Do not trade now —put the old car into good repair.

In the absence of reliable "book" values of used cars, and with list prices of new ones practically meaningless, the prospective purchaser is forced to shop around to determine the market value of the car in which he is interested. At this time a buyer in the *Ford-Chevrolet-Plymouth* class will have to pay about $1000 extra (that is, above list price, less trade-in allowance which is likely to be low) to get reasonably prompt delivery of a new car. This $1000 premium is divided in various ways according to the way in which the car is bought. When the purchase of a new car is made from an "honest" dealer, the overcharge usually takes the form of an abnormally low trade-in valuation. Most dealers try to avoid cars older than 1941 for the obvious reason that their market value is not high enough to permit the high profit which the dealer wishes to realize on the transaction.

One prospective purchaser rushed to the dealer's showroom upon receiving the news that his *Ford* car had arrived, to discover the car decked out with a staggering array of extras which included overdrive, tachometer, fog lights, etc., bringing the price to $2050 instead of the normal figure which would be about $1550. (CR's March 1947 BULLETIN reproduced a dealer's bill showing numerous unwanted extra equipment items that were pushed on the purchaser of a 1946 *Chevrolet*, to a much smaller amount, $115 worth.)

A fleet operator reported that he was offered eight *Studebaker Champion* cars at list price, providing he had 1941 or later cars to trade in. Upon inquiring concerning trade-in values, he was informed that he would be allowed *$1 per car*, as the dealer intended to make not less than $1000 extra profit on every one of the cars.

It is unfortunate that many reputable dealers must suffer the suspicion which is so generally directed toward them, and it is reasonably certain that the experiences of these post-war years will cloud public opinion of automobile dealers' ethics for years to come. One of the unfortunate aspects of "gray market" conditions in automobiles as well as other commodities is the temptation afforded dealers to receive unrecorded payments which may not be mentioned when the time comes to report on taxable income. Because of heavy taxation in the upper brackets, there is little net advantage to many dealers in profits beyond a certain point; rumor has it that friendly bonuses up to several hundred dollars paid in cash may be accepted by dealers to assure early delivery.

Repairing the Old Car Often the Wise Course

There is only one certain way in which automobile sales can be put on a basis where new cars will be sold at the price figures set (in normal times) by the makers; that is for consumers who do not really need a new car at this time to cease competing for the limited supplies of cars available. Perhaps the most important way in which this end can be brought about is that a consumer whose present car can be made serviceable will have it repaired and put in good running order, so that it will give several more years of service—after which time, perhaps, the "sellers' market" in automobiles may be fading into economic history.

The larger dealers who operate well-equipped service departments are constantly advising owners to repair their cars and keep them running. This is good advice and should be taken seriously by the motorist. It is not only possible but fully practical to have the old car completely overhauled and repainted, and the result can and should turn out near enough to new-car performance to satisfy even a fussy driver.

The table that follows itemizes the repairs to a 1939 *Plymouth* which had traveled 120,000 miles and which had been repaired off and on, as required by ordinary maintenance needs during that time. The body was in "bad" condition, with panels and door sills rusted through, trunk lid badly dented, and three fenders damaged.

Repair of body, including welding in new panels and door sills, and removing dents from trunk lid and fenders	$125.00
Painting — synthetic enamel, first-class job	60.00
Overhaul of entire front end; installation of king pins and bushings, knee action control arm bushings, and removal of play	36.00
Replacement of shock absorbers	24.40
Repair of master cylinder (brakes)	8.50
Lubrication of universal joints (new joints had been put in at 85,000 miles)[1]	1.50
New motor, including overhaul of starter, generator, carburetor, and distributor; overhaul of transmission and clutch	383.00
New floor mat	3.00
Seat covers	15.00
Repairs to radio	6.50
	$662.90

[1]Had it been necessary to replace these joints, it would have cost approximately $31, bringing the total bill to about $690.

The above, it will be noted, represent almost *a complete overhaul*, which covered every major unit except the differential. It provided the owner with a car which, in both appearance and operation, was very close to its original new condition. To be sure, the car still had 1939 lines—if that is any disadvantage—but for the owner who wants efficient transportation and is not considering the car from the standpoint of newness and resale value, it offers many trouble-free miles of comfortable, efficient transportation.

A check of some of the larger service departments reveals the surprising fact that they are not overloaded with work. A little careful questioning will generally reveal that they "... are busy but can use some more work." Parts are still somewhat difficult to obtain, especially body parts for the older cars, but repairs are rarely delayed greatly for want of parts. Paint shops are also looking for more work, and it is seldom that the larger shops cannot begin work on a car almost at once.

It appears that many motorists are overlooking an excellent solution to the new car problem, and certainly the current selling prices would return to today's "list" or less much more rapidly if some hundreds of thousands of cars in fair condition were overhauled instead of being traded in at unreasonably low values. Now, more than at any other time in the history of motoring, a little persistence and ingenuity in keeping the old car running can be richly repaid; the way to stop inflation in any field is not to compete with other buyers for the scarce articles, but so far as possible to shift purchases to the things that others are doing without or are not interested in at this time. Repairing the old car, rather than buying a new one, is today's best answer to the problem of scarce and overpriced automobiles.

A Litharge-Glycerin Cement for Household Repair Jobs

Metalon (Metalon Mfg. Corp., 31 W. First St., Bayonne, N. J.) is a clear liquid which is to be combined with a *Metalon* powder to form a smooth, heavy paste, which is recommended as a "new metal" for mending leaks in aluminum, lead or iron pipes, water backs, boilers, radiators, automobile heads, etc. The expression "new metal" is certainly a misleading term, as the product is not metal, does not look like metal or have the customary characteristics of hardness, tenacity, etc., of the familiar metals. The assertion that there is "no invention on the market that nearly approaches METALON in 100% efficiency" also seems misleading, as analysis of the product indicated that it is, under a new name, the mechanic's old friend litharge and glycerin, familiar materials long used by mixing together to make a rather strong water-resistant cement. Litharge is extremely poisonous, and care should be taken that the litharge does not get into the air as dust and that neither the litharge nor the cement made with it comes into contact with drinking water, or food materials or utensils.

Portable Dishwashers

The reader who has not read some of the advertising for one of the contrivances discussed in this article may wonder whether they are worth the space here given them. The result of the test shows they are not of value, but the housewife unfortunately would have no way of knowing that until she has spent her money, for the advertising has been persuasive. Naturally anyone would like if possible to buy an effective dishwashing device for from $9.75 to $34.95 or some other figure very much smaller than the amount asked for such dishwashing machines as *Dishamatic* and *General Electric* at about $224, and *Thor Automagic* at $169.50, plus $59.95 for dishwasher attachments. Unfortunately, even the higher priced of these substandard "portable dishwashers" do not do their job effectively. Perhaps the information here may help many consumers to understand why they cannot get the expected results from a low cost dishwashing gadget or machine.

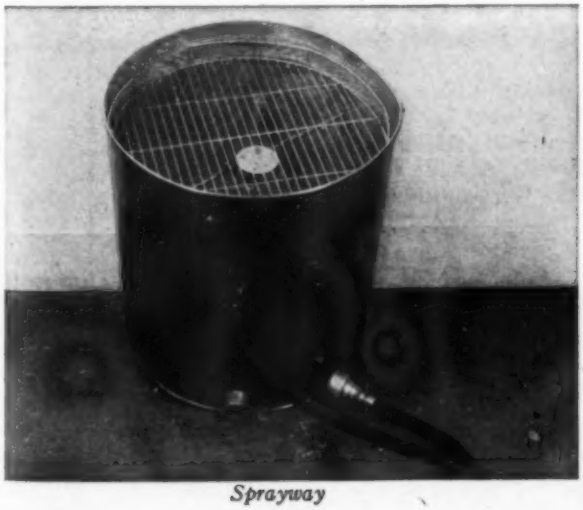
IT is a strong-minded person, indeed, who can read the advertising and publicity about the convenience and efficiency of the portable, "baby," or faucet dishwashers and manage to refrain from buying one of the good-looking gadgets, for ad-writers have written soaring accounts of the wonders they will perform in the kitchen sink. Gimbel's big New York City department store advertised the *Watermatic*, using such glowing statements as these:

". . .it needs no installation. . . it's sanitary and self-cleaning . . . it saves time, saves soap . . . its double action thoroughly cleans. . .it's compact and easily stored. . . ."

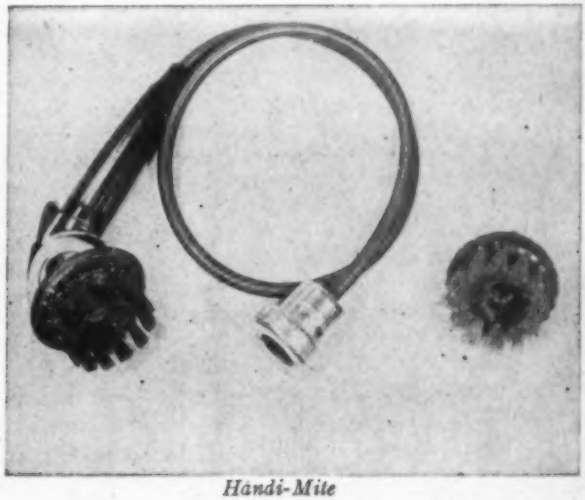
Later the same store's advertising writers were selling the "new *Handi-Mite* dishwasher that. . . saves time, saves your hands, saves money. Just slip *Handi-Mite* on to your kitchen faucet. Turn on the water. In one easy operation, you clean and rinse your dishes. . . ." And so on.

The unwary purchaser is doomed to discover very soon that there is a wide gap between promises made by even the best-known of department stores and real performance of the dishwashers, wider perhaps even than the usual gap between the advertising man's superb imaginings and the actual performance of many common kinds of appliances. Even department stores with testing laboratories cannot be depended upon to tell the whole truth, where novel and attractive kitchen appliances are concerned.

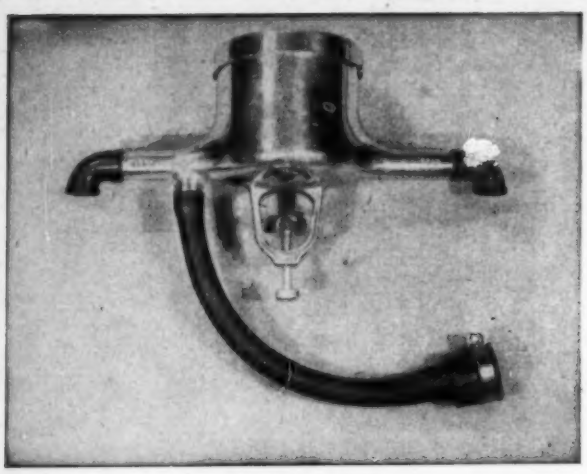
Four dishwashers of the portable type were found available for purchase—the *Handi-Mite*, *Sani-Speed*, *Sprayway*, and *Watermatic*. In using the two first named, the dishes are held for washing and rinsing and the user's presence is thus required for the whole operation. The *Sprayway* and the *Watermatic* are dish containers equipped with water-driven mechanisms for washing and rinsing the dishes stacked in them. None of these four washers is supposed to dry the dishes; on this the *Watermatic* advertising remarks, "In a few minutes the dishes are



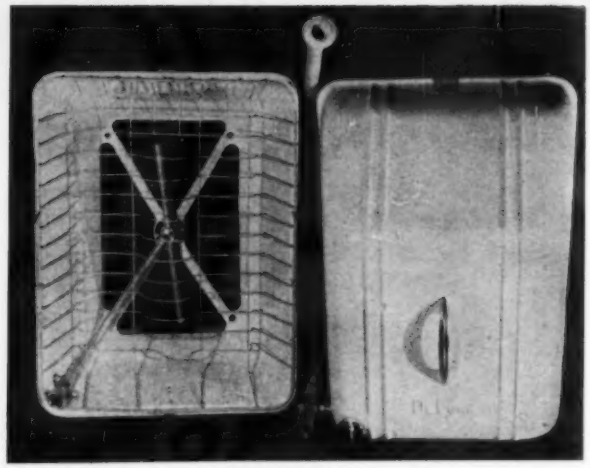
Sprayway



Handi-Mite



Sani-Speed



Watermatic

sparkling and *all ready to wipe.*" [Italics CR's.]

The dishwashers were given a critical engineering examination, the most important observations of which appear in the listings. They were then put into actual use and were found so completely ineffectual that it was disturbing to see quantities of good materials used to make plainly inefficient pieces of equipment. There are always people who will buy almost any "gadget" which comes to their attention and it seems unfortunate that manufacturers should place such "temptations" as ineffective dishwashing devices on the market when the materials are badly needed for useful, efficient appliances.

Ratings are cr48.

C. Not Recommended

Handi-Mite (L. K. Franklin Corp., 1241 S. Hill St., Los Angeles 15) $9.75. A hand sprayer which is connected to the faucet by a rubber hose held in place by the clamping action of the jaws of a metal adapter (which is likely to scratch the surface of a finely finished faucet). Sprayer is equipped with both a nylon and a metal bristle brush. Used a doughnut-shaped piece of a special detergent (*Brite-Wash*) made by the same manufacturer as the washer; the special detergent is a major disadvantage, considering that washer would be useless if manufacturer went out of business or quit selling the detergent. Carries guarantee that manufacturer will keep the appliance "in mechanically perfect condition *for the lifetime of the original user* [italics ours] with only a nominal service charge of $1"; this does not cover replacement of brushes, which is extra. Easy to use. Corners of square pans could not be cleaned with the device, and it was not suitable for use in some glasses, unless an extra accessory at $1.50 were purchased. On the whole the appliance was judged to be of so little use that it would hardly be worth the time to attach it. **1**

Sani-Speed (Caldwell-Noel Corp., 218 Boyd St., Los Angeles 13) $6.95. Comprises a soap cup or container with two water spouts. From one of these a stream of clear water emerges, from the other a stream of soapy water. A perforated disk in each water outlet produces a spray. Use of cake soap required, because flakes would tend to clog the holes in the soap compartment. Actual washing is done with dish mop or cloth by hand while holding the dishes under one of the two sprays. (With two sprays of water going all the time the user is very likely to be splashed.) The appliance is wasteful of water, as both sprays run even though only one is in use at a time; it is, of course, wasteful of soap, for the same reason. **1**

Sprayway Motorless (Distributed by Scanlon Sales Co., Inc., 480 Lexington Ave., New York 17) $39.95. Stainless steel tub fitted with perforated horizontal brass tube which revolves when propelled by pressure of water spurting from the tiny holes. Aluminum cover. The tub is of rather light-gauge material which dented readily, and plastic handles were frail. Great care had to be exercised in placing dishes in the trays, or spinner would not work. Capacity too small for dishes from one meal for family of four; probably large enough for family of two. An extravagant amount of hot water (about 10 gal. at a normal household water pressure in the recommended time of 5 minutes) was used. Dishes were not cleansed within the time recommended in the directions. Storage of such a large ungainly piece of equipment would be a problem in any kitchen. Judged not worth while to set this appliance up since the number of dishes it would hold could be washed by hand and be cleaner, in about the time it would take to load the dishes into the machine and operate it. **3**

Watermatic (De Long Engineering Co., Inc., South Gate, Calif.) $34.95. White enamel rectangular box-like receptacle which works on principle similar to the *Sprayway*, but has two revolving tubes, one above, and the other below a single dish rack. Tub dented easily. Has open bottom; hence must be placed in a sink so that waste water can be easily taken care of but would not fit in some sinks, because top is so high it would not go under the faucets. Dishes not cleansed within recommended time. *Watermatic* is not quite so bulky as the *Sprayway*, but storage would nevertheless be a serious problem. As capacity was about half that of *Sprayway*, it would be of even less use for the average family. **3**

A New Line of Motor Oil Advertising

If your car is one that is driven under normal conditions and you are in the habit of saving money on automobile oil by following the advice which CR has given for many years on the problem of oil changes, you will probably change the oil in the crankcase of your car only twice a year, in the spring and fall, adding oil as required to keep it at the correct level.[1] Now, full-page advertising by the Union Oil Co. gives the clear implication that their new *Royal Triton Motor Oil* may be kept in the crankcase for 3 years without need for a change. *Other* advertising of the company greatly reduces the strength of the claim for long crankcase life for its oil and states "So high in quality, you change it only 2 times a year."

As already pointed out, the latter is sound advice for cars *driven under normal conditions*, but the Union Oil Company's advertising fails to point out that there are some conditions under which it would be very poor policy to change oil only twice a year; for example, in winter use of a car where it is driven more or less regularly over short distances at slow speeds, the heat generated in the engine is insufficient to drive off the water that condenses into the crankcase; with this condition, sludging of the oil can occur and changing of the oil should be carried out more frequently, say every three months or about every 500 miles (whichever occurs first). The expensive, or premium, oils also may require more frequent oil changes since these "heavy-duty" or "doped" oils may loosen engine deposits and clog oil screens and oil lines unless care is taken to guard against this by regular and frequent oil change (see CR's BULLETIN of September 1946).

To a layman and average car owner, the claims made by the Union Oil Company will sound very convincing. Four new cars were driven for 30,000 miles, along the West Coast, in June 1947, without an oil change. At the end of the run, "No sludge or varnish was found anywhere and only the lightest trace of carbon." We are also told that make-up oil was added as needed during the run, that a professor of the California Institute of Technology conducted all technical examinations, and that a "famous racing driver" led the run.

These are doubtless statements of fact. The disadvantage from the standpoint of the consumer lies in the facts that the advertising copy writer does not mention, in the conclusions drawn, and in the way in which the data were used in developing the advertising copy.

Royal Triton is the same lubricant as has been sold for some time as a heavy-duty oil for trucks and tractors under the name *U.T.5X*, and it contains additives, in even larger doses than does *Triton*. To quote National Petroleum News of August 20, 1947, "Union Oil says it is conscious of the potential difficulties in marketing the oil which is chiefly valuable to motorists with new cars or older cars with recently overhauled engines. With this in mind, company has quietly instructed dealers to sell new oil only to those customers and not to customers with old cars."

To test the extent to which the consumer could rely upon this "quiet instruction" to dealers, an old jalopy was driven to a Union Oil Company Station and the attendant was told that the old crate was just living on oil and how about a change to the new *Royal Triton*. The service-station man eagerly complied. When asked if the oil could be used for 30,000 miles, he replied in the affirmative. A short sales talk by the attendant followed with a statement to the effect that if anything besides carbon and gum was holding the engine together this oil would put new life into the old hulk.

"Additive Oils" Usually Not Worth While—Often Disadvantageous

There is little doubt but that motorists all over the country will be subjected to pressure from service station attendants to purchase oils containing various additives; yet these oils in many cases *will be definitely undesirable* for use in their particular cars. Those who use cars that are some years old—and such motorists will be in

[1] It must be remembered that in draining a 6-qt. crankcase only 5 qt., approximately, are removed, and about a quart of used oil will be left in the engine; this residue of the oil is likely to contain a large proportion of the sludge and other impurities. Thus changing oil frequently is not likely to give one a fresh start with a strictly clean engine (an advantage many oil-refining companies would like you to believe will be the result of an oil change). When oil is changed, the crankcase should be drained immediately after use *while the engine and oil are hot;* this practice reduces to a minimum the amount of dirt and sludge left in the pan. Flushing oils, though often recommended for cleaning a badly sludged engine, are considered ineffective for their purpose.

the majority—will be well advised to continue using the "regular," lower-priced (non-additive) oils, even though it may require some extra effort on the part of the purchaser (since dealers are making it more and more difficult, of late, for consumers to buy "regular" or non-premium oils).

Since the optimistic statements in the *Triton* ads are apparently based on the 30,000-mile experimental run, many questions arise that have not been answered.

First, the choice of test cars is difficult to account for unless there were some special reason for using new *Cadillac*, *Chrysler*, *Lincoln*, and *Packard* cars instead of the popularly-priced cars which represent over 90% of the cars on the road.

Other questions are: (1) How much make-up oil was added? (2) Were oil filters used? (3) How often were the engines tuned up? (4) How often were the engines stopped and allowed to cool? (5) At what speed were the cars driven? (Speed is implied, but only implied in the fact that a racing driver led the run.) (6) Were dusty conditions encountered along the Coast Super-Highway? (7) Was any country driving included? (8) Why was the test stopped at 30,000 miles if engine and oil were still perfect? (9) Was a regular grade of gasoline used?

Since these answers are not given in the advertising, we must assume that ideal conditions (from the standpoint of good lubrication conditions) prevailed throughout the test. Moderate and even speed, perfect tune up, no dust, good filters frequently changed, engines never allowed to cool thoroughly overnight, little stop-and-go driving, etc.

How many of us do our driving under those conditions and in brand new *Cadillacs*? The cars we are driving today are not predominantly new cars, but old ones from several to fifteen years old, and many are, besides, without the filters and automatic chokes that characterize many of today's cars. Dilution builds up when the car is being started and warmed up on a cold day and while the driver waits for the stop signs to change. We drive through blistering heat and numbing cold, through showers and dust, over mountains and dirt roads.

It is, therefore, an insult to the intelligence of the motorist to tell him that he can drive 30,000 miles without an oil change on the basis of very specially conducted test practices that do not even remotely resemble the average motorist's every-day driving.

It should be understood that the additives in heavy-duty or premium motor oils will keep an engine cleaner by keeping sludge and the soot which comes from the combustion of the gasoline and oil, in suspension. Moreover, the danger of ring-sticking and clogging of oil rings is reduced. However, moisture, dust, dirt and sand, as well as dilution, petroleum and mineral acids, and the possible mechanical defects of an engine, still are the deciding factors in determining proper oil change periods, and it will apparently be a long time before manufacturers' advertising can be trusted to be even a reasonably dependable guide to consumers in such matters.

It is our opinion that many other heavy-duty or premium oils would have given results fully as satisfactory as those achieved with *Royal Triton* if they had been used on the test runs as conducted by Union Oil Company. If there is justification for paying an extra price of 5 to 10 cents (sometimes more) a quart for premium oil, it is pretty certain that this justification has not been provided by the evidence of Union's experimental run on expensive new cars.

Union, of course, is not the first oil company to differ with the recommendations of the American Petroleum Institute, which, for many years, has recommended that oil be changed with every thousand miles. Oil company practices differ, for Kendall Refining Co. advertises a "2000 mile" oil, and Macmillan Petroleum Corp. advises following car manufacturers' recommendations (which vary from 1000 to 5000 miles before draining).

Crankcase Oil Viscosity—A Problem of Cold-Weather Operation

For many years it has been accepted practice among motorists in cold regions to dilute crankcase oil with up to approximately 10% kerosene for temperatures below 10°F, and it has been necessary to do this because there have not been oils sufficiently fluid at low temperatures to make starting easy and certain in very cold climates. A paper recent-

ly presented before the Society of Automotive Engineers[1] questions the advisability of adding kerosene (or indeed other light oil products which are widely sold to be added to the crankcase oil) to promote easy starting. The basic objection is an important one, in that the addition does not result in a stable lubricant; the light-oil diluent is volatilized with driving, and after a short time (about half the kerosene may be lost after 200 miles of driving at 50 to 60 miles per hour) the lubricant is back to the original condition, and has lost the fluidity which it must have if the car is to be started at low temperatures with certainty. (The problem is not a serious one for transmission and rear axle lubricants, for stable lubricants of the proper viscosity have been developed for this use, and it is no longer necessary to dilute transmission and rear axle lubricants as was formerly done. For example, it is required that SAE 80 and axle lubricant must not "channel" at –20°F.)

Unfortunately no crankcase oil really suitable for sub-zero driving has yet been produced for the market, although a 5W oil is now said to be under consideration. Until such time as the oil companies produce an oil that will facilitate starting at sub-zero temperatures and give satisfactory lubrication without greatly increasing oil consumption, those who drive in sub-zero temperatures will apparently have no choice but to continue diluting their crankcase oil with kerosene. They must bear in mind, however, that the dilution is strictly a temporary measure; it may get their car off on the first morning; after a few days or less of fairly steady driving, perhaps the gain has been lost, and it will be necessary to add some more kerosene.

[1]Sub-zero Automotive Crankcase Oils, by E. W. Upham, Chief Metallurgist, Chrysler Corp., and H. C. Mougey, Tech. Director, Research Laboratories Div., General Motors Corp.

Two Vacuum Cleaner Floor-Polishing Attachments

IN CR's original report of the test results of the *Eureka*, Model D 272, and the *Kirby*, Model 505, vacuum cleaners which appeared in the March 1947 BULLETIN, there was no discussion of the floor-polishing attachment which was supplied as extra equipment with each cleaner. Practical tests have now been completed to permit judgment of the effectiveness of these attachments; these tests included their use on both wood floors and linoleum-covered floors.

An identical test procedure was used for both attachments. The linoleum-covered floor was first washed with soap and water. When it had dried thoroughly, a thin layer of wax was applied evenly and allowed to dry for one hour. The floor was then polished for five minutes. The wooden floor was first carefully cleaned. Three coats of pure shellac were then applied as a filler, after which the wax was applied and the floor polished as noted above.

The attachments once installed were found easy and convenient to operate. The results obtained after each polishing accessory had been used were judged by a competent "jury" of six or more persons. It was found that the *Kirby* polishing attachment gave slightly better results than that of the *Eureka* on both linoleum and wooden floors. However, over-all results were considered only fair on the average for both floor-polishing attachments and visible brush markings were left on the floor surface in each case. Some difficulty was experienced in installing the polishing attachments on the *Kirby* machine. Both skill and strength would be required, and the housewife might in some cases find it almost impossible to fit the attachment into position. The *Eureka* did not involve this difficulty, and it would not take over a minute or two to make the installation after the directions were once understood.

CR feels that the additional cost of attachments of this sort might be justified if floors are polished only occasionally. However, if polishing is done often, or in considerable amounts, and the best quality of work is desired, the consumer would probably be better satisfied if a regular polishing machine were used. (See preliminary report on *Regina* Electric Floor Polisher, in the January 1948 BULLETIN.)

B. Intermediate

Eureka, Model D 272, Floor-Polishing Attachment (Eureka Vacuum Cleaner Co., Detroit) $7.50.

Kirby, Model 505, Floor-Polishing Attachment (The Scott & Fetzer Co., Cleveland) $16.95. Not easy to install, but results obtained with this attachment were considered slightly superior to those with *Eureka*.

Three Automobile Radios, Two Audio Amplifiers, an AM-FM Tuner, an AM-FM Table-Model Radio, and an AM-FM Receiver Chassis

Automobile Radios

At the present time, an automobile radio receiver is purchased most frequently (sometimes under dealer compulsion) as a built-in accessory with a new car, and is either made by the automobile manufacturer or made for him by another manufacturer, specifically for the car with which it is sold. There are still available, however, a few radio sets, sold through radio dealers, which may be installed in any car by a radio serviceman or by the car owner if he is mechanically inclined.

For use in an automobile, a radio set should have good sensitivity because it often will be used at a considerable distance from a desired broadcasting station and will often work under extremely adverse conditions of poor antenna, or shielding by hills and structures. The manufacturers of the automobile radio receivers which we have heard have made little effort to provide first-class tonal fidelity (as good as would be afforded by a high-grade home receiver). In any event, it is important that the set should afford a fairly high volume level that will override the noise of the car with at least reasonably good tone quality and without blasting.

Many car radios have exceedingly bad tone quality (harmonic distortion) such that listening to them for a protracted period becomes quite fatiguing. This, which is the result of poor design, can be avoided if the manufacturer wishes to spend the time and trouble to do so.

All three sets tested and reported here were 6-tube superheterodynes covering the broadcast range only; all had automatic volume control of adequate effectiveness; all were judged of sufficiently rugged construction to withstand the vibration of the automobile. All gave roughly the same output volume at a given amount of distortion, although the *Motorola* and the *Silvertone* were the two best in that respect.

Ratings are cr47.

A. Recommended

Motorola, Model 505 (Galvin Manufacturing Corp., Chicago) $59.95 including "custom" tuning head. Manual (knob) tuning only. Approximate fidelity range (measured electrically and not including the loudspeaker), 30 to 5800 cycles (best in the group). Maximum output power, 2.6 watts at 10% distortion. Acoustical quality on listening tests, good as automobile radio receivers go—nearly as good as for *Philco* set. Sensitivity, good; selectivity, fair. Quality of parts and workmanship, good. Parts were not crowded and accessibility for maintenance was good. Some trouble might be encountered as a result of the manner in which tuning and volume-control cables were secured to the tuning head. Considered the "best buy" in the group tested when price is considered. **2**

Philco, Model CR6 (Philco Radio Corp., Philadelphia) $69.95 including custom tuning head. Manual tuning only. Approximate electrical fidelity range, 30 to 3500 cycles. Maximum output power, 2.1 watts at 10% distortion. Acoustical quality on listening tests, good (as auto receivers go)—best of the three sets tested. Sensitivity, good; selectivity was good, and best of the three. Quality of parts and workmanship, good. There was no crowding of parts; accessibility for maintenance, good—easily removed from the firewall of the car, and covers could be snapped off. **2**

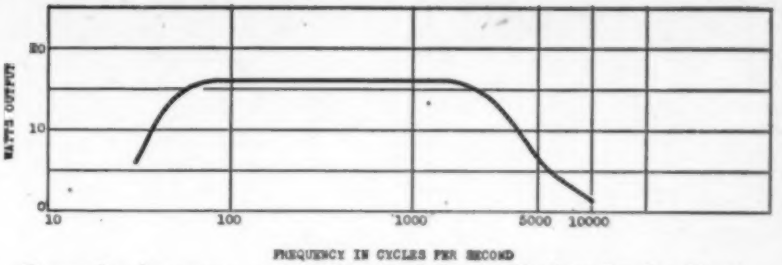
B. Intermediate

Silvertone (Sears-Roebuck's Cat. No. 6290) $59.95 including custom tuning head. (Appears to be same set as listed in Sears Fall and Winter catalog under No 28—06292 at $58.95.) Manual and push-button tuning; push-button tuning system believed likely to give trouble in time. Approximate electrical fidelity range, 25 to 4200 cycles. Maximum power output, 2.4 watts at 10% distortion. Acoustical quality on listening tests, fair but not as good as *Philco* or *Motorola*. Sensitivity, good; selectivity, fair to good. Quality of parts, average; quality of workmanship, average, but with some crowding of parts. Construction considered inferior to that of *Motorola* or *Philco*. Although priced the same as *Motorola*, considered not so good a buy. **2**

Two Audio Amplifiers

Of the two amplifiers reported on in this article, one, the *Electec*, lacked any tone control. This is a definite disadvantage in any amplifier to be used for phonograph reproduction, as the lower frequencies on records are of necessity "undercut" because of the limited distance between successive grooves of the recording spiral. (The lower frequencies, if recorded at their full or normal power, would call for such

a wide lateral movement of the cutting stylus as to cut into adjacent grooves in loud passages.) Programs as broadcast over present AM and FM stations, whether recorded or "live," however, are transmitted without this special attenuation calling for use of a "bass boost" mechanism.



Curve showing power output characteristic at 5% distortion for *Electec*.

While some may insist that there is no excuse for cutting off the higher frequencies, there is, in practice, need for such tone control, especially when worn or scratchy records must be played; sometimes, too, a radio program transmitted through very bad static can be made at least listenable by cutting off some of the upper frequencies with the treble tone control (though of course it cannot be made into good musical reproduction by this means).

A new and what may turn out to be a rather important practical feature was used in the *Electec Amplifier*. Nearly all of the circuit elements, except the power and an input and output transformer, were fully enclosed in metal shields, which in most cases were similar in appearance to metal tubes, and were of the plug-in type. They were mounted, just as the usual tube, on the chassis. This made for a very neat and accessible underchassis assembly, and should make the servicing of any amplifier or other radio or sound equipment in which it is used relatively simple.

In listening tests, the *Electec*, while considered superior to the general run of amplifiers offered for consumer use, did not compare with the performance of the *Brook*, Model 10C2, and some distortion was noted when a large group of instruments were being reproduced simultaneously. The hum level was considered rather too high to make use of this amplifier desirable with other high-fidelity equipment (for example, speakers having very good bass response).

The other amplifier reported, the *Knight*, appeared to be a very good buy except for the fact that its bass boost was not fully sufficient for the best reproduction of recordings. The performance in listening tests was considered quite satisfactory, and it was certainly equal to or better than some of the more expensive units that have been tested so far; although its reproduction did not sound as clean as that of the *Brook*, Model 10C2, it was considered superior to the *Stromberg-Carlson*, Model 33 (both reported on in CR's BULLETIN, May 1947).

The *Knight* amplifier included a feature called "volume expansion," which will be familiar to people acquainted with record reproduction and the amplifiers used for that purpose, but this was not considered an advantage. This feature is a "sales point" that has appealed in the past to many consumers, but CR doubts whether it has substantial merit in consumers' use, or that it will be highly regarded for those who have tried it for a time.

Both amplifiers made use of multi-grid tubes in their input stage and both used "Beam Power" output. CR feels that the use of triodes throughout is necessary if the best in high-fidelity reproduction is to be attained.

A. Recommended

Knight High Fidelity 20 Watt Phono-Amplifier, Model 20W-PH (Allied Radio, 833 W. Jackson Blvd., Chicago 7) $59.95. Brown and tan, *Hammerloid* finished steel cabinet, 17¼ in. x 11¼ in. x 9⅜ in. over-all size. Tubes used were a 6SA7 (heptode—see text) as first audio in expander circuit, a 6SL7 (duotriode) as expander rectifier, a 6SL7 as second audio and inverter, two 6L6G's in push-pull as output ("Beam Power"—see text), and a 5U4G rectifier. A gain control, a two-position channel selector switch, high-frequency and low-frequency tone controls, and an expansion control were used. Plug-type selector provided the following four output impedances: 4, 6, 8, or 500 ohms. (This range would usually suffice for consummer needs.) Electrically, the amplifier was quite linear from 20 to 20,000 cycles and had very little harmonic distortion above 35 cycles (2.5% or less at 40, 400, and 4000 cycles at 12 watts output). The volume expansion circuit provided a maximum of about 8 db. expansion in the middle range; it could be turned off when desired. Unit was well constructed and contained what appeared to be first-grade parts. Physical size of output transformer, for instance, was considered large (desirable) for equipment in this price range. Developed 25 watts output (very good) with 0.2 volt input. Hum level 59 db. below 25 watts with the volume control set at maximum. Leakage current quite low (0.1 ma.). Utilized inverse feedback from the voice coil back to the second audio stage (desirable). Instruction book furnished.

Over-all performance considered superior to the *Stromberg-Carlson*, Model 33. These findings apply only to *Model 20W-PH;* they do not apply to another *Knight* 20-watt high-fidelity amplifier formerly sold at the same price, and having a quite different selection of tubes, and affording a wider choice of output impedances. **2**

C. Not Recommended

Electec Amplifier, Model PW 20 (Electec Co., 1207 Race St., Philadelphia 7) $98. Cabinet size, 13½ in. wide, 10 in. deep, and 7 in. high. Used 6 tubes, including a 6SJ7 (a pentode—see text), a 6SL7, a 6SN7, two 6L6's in push-pull ("Beam Power"—see text), and rectifier. Provision for both microphone and phonograph inputs. Power output at 5% distortion with "Hi-Lo" switch in "Lo" position —16 watts at 1000 cycles. With switch in "Hi" position, the power output was approximately 25 watts. This amplifier was seriously at fault in respect to the filter condensers used, in that in the "Hi" position of the "Hi-Lo" switch, filter condensers were subjected to voltages above their 350-volt rating. (It is understood that this fault was due to scarcity of plug-in condensers at the time of manufacture, and that at present 450-volt condensers are being used.) Electrical fidelity very good; response curve was flat (± 3 db.) from 20 to 10,000 cycles, although the power output curve tapered off rapidly after 2000 cycles, being somewhat deficient in the high-frequency region (high power output is of little importance, as a rule, at the higher frequencies). Power transformer operated at moderate temperatures and was judged adequate. Output transformer was large (desirable) and its size was reflected in the good power output at low frequencies. Diagram showing location of chassis components supplied on back of panel (very desirable), but no circuit diagram. Device used to lock the chassis in the cabinet considered rather crude; did not work properly. **3**

AM-FM Tuner

A. Recommended

Meissner AM-FM Tuner, Model 9-1091 (Maguire Industries, Inc., 936 N. Michigan Ave., Chicago 11) $147, tubes and chassis only. For operation on 105-125 volts, 50-60 cycles. Covered regular AM broadcast band and FM band from 88 to 108 mc. Superheterodyne; separate AM and FM tuning sections with power supply and audio preamplifier common to both AM and FM. 18 tubes used, as follows: 9003 r.f. amplifier; 6BE6 oscillator-converter; two 9003 i.f. amplifiers; 6AL5 detector for AM section; 6AG5 r.f. amplifier; 6C4 oscillator; 6AG5 converter; three 6AG5 i.f. amplifiers; two 9001 limiters; 6AL5 detector for FM section; two 6C4 audio amplifiers; 6U5/6G5 for tuning indicator; and 5Y3GT/G for rectifier. Was well constructed, with rugged tuning systems. Electrical construction average. Two output impedances available — 500 and about 10,000 ohms (adequate). Distortion at 10 volts output (using high impedance) at 400 cycles, 1.4% (desirably low). Electrical fidelity of audio preamplifier section was excellent — within 3 db. from 30 cycles to over 20,000. With phonograph input the gain was adequate for use with modern crystal pickups, such as the *Astatic QT-M*, and built-in compensation was provided. It would not be suitable for use with high-grade magnetic pickups such as the *G.E.* and *Pickering*. Hum level, satisfactorily low. Bass boost control up to 10 db. at 50 cycles. Treble control gave plus or minus 14 db. (boost or attenuation) at 10,000 cycles (good). On FM, sensitivity varied from 15 microvolts at 88 mc. to 60 microvolts at 108 mc. for limiting (fair—did not come up to maker's claim). Selectivity, adequate. Was easily tuned with tuning eye, and frequency drift was low. On AM, sensitivity was 25 microvolts and practically constant throughout band (good). AVC characteristics, good. Two-position bandwidth switch (6 kc. and 12 kc.), adequate for most AM use at the present time. Dial calibration on both AM and FM was reasonably accurate. We believe this tuner to be probably the best AM-FM combination we have tested up to the present time, and if used with a good power amplifier and speaker, the whole properly placed and mounted, it would provide a fairly reasonably-priced (as today's prices go) high-fidelity radio receiver system. (Power amplifier required, in addition, to furnish audio power sufficient to drive loud-speaker.) The above listing applies only to *Model 9-1091* and should not be applied to another *Meissner AM-FM Tuner*, Model 9-1093, which CR has not tested. **3**

AM-FM Table-Model Radio

C. Not Recommended

Stromberg-Carlson Pioneer FM-AM Radio, Table Model 1204 H (Stromberg-Carlson Co., Rochester, New York) $74.95 in brown and $79.95 in ivory plastic cabinet. Superheterodyne set using separate permeability-tuned r.f. systems (mixer, audio, and power supply, common). Ac-dc or transformerless-type receiver, with one side of line connected to the chassis (an undesirable type, involving high shock hazard). However, chasis and all parts involving this hazard were fairly well protected from possibility of accidental contact. General mechanical construction good. General electrical construction fair—on a par with other sets in this general price class. Audio amplifying system, which employs a single stage of amplification ahead of a beam power output stage without feedback, poor. Distortion at 400 cycles, 10% at 0.8 watt output; 5% at 0.3 watt output. (Output fair for a table-model receiver.) Hum present but not objectionable. Audio response, measured electrically, 140 to 6000 cycles. Speaker produced little output below 200 cycles. Sensitivity: AM, 50 microvolts at 600 kc. and 200 microvolts at 1500 kc. (not good); FM, 100 microvolts at 88 mc. to 600 microvolts at 108 mc. (poor). Dial calibrations, off considerably on both AM and FM. Loop antenna used for AM system. Power line cord antenna system used with FM, with provision for using a regular outside FM antenna. **3**

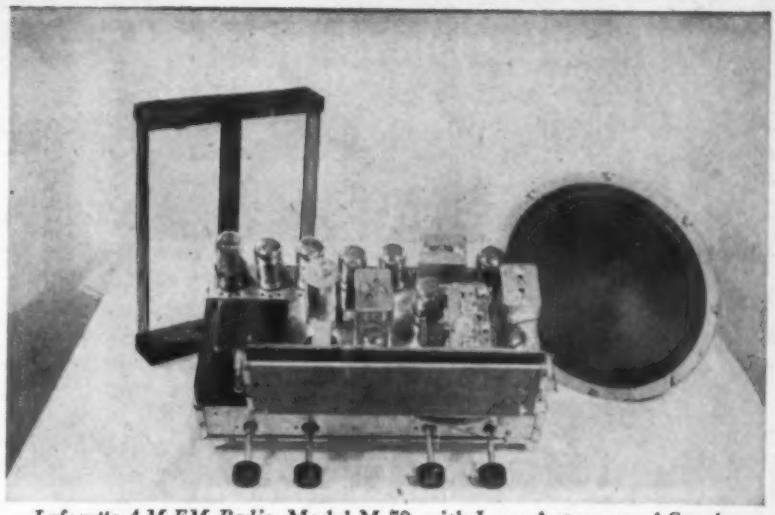
AM-FM Receiver Chassis

THE AM-FM chassis and speaker combination listed in this report is apparently being marketed under several trade names and principally through mail-order radio dealers.

Readers planning to purchase any combination of similar type may wish to check whether the set offered has a similar line-up of tubes and output transformer.

C. Not Recommended

Lafayette AM-FM Radio, Model M-70 (Radio Wire Television, Inc., 100 Sixth Ave., New York 13) $97.50 (chassis, antennae, and speaker only). For operation on 105 to 125 volts, 60-cycle alternating current only (good). Loop antenna and external folded dipole antenna provided for AM and FM sections respectively. Covered 540-1700 kilocycle band (standard broadcast) in the AM section, and 88-108 megacycle band (only FM band in present use) in the FM section. FM section had one untuned radio-frequency stage; no radio-frequency stage in the AM section (there should be one). Quality of workmanship, average; quality of parts, average except output transformer, quality of which was such that it reduced the low-frequency response below an acceptable value. Ratio detector used in the FM section. Output circuit used two 7C5 beam power tubes in push-pull, with inverse feedback; not best suited for high-fidelity reproduction. Approximate electrical fidelity range of the AM section was 80 to 5500 cycles (60 to 7700 claimed), and for the phonograph channel, 80 to 10,000 cycles. Approximate fidelity range of the FM section, 20 to 10,000 cycles (down 6 db.) (40 to 12,000 claimed), allowing for pre-emphasis at broadcasting station. Power output (at 10% distortion), 9.5 watts for radio, and 11.4 watts for phonograph channel, both measured at 400 cycles, with good output maintained from 70 to 10,000 cycles. Maximum power output, 17 watts at very high (28%) distortion. 10-in. permanent magnet speaker. Sensitivity, good; selectivity, fair. Did not carry Underwriters' Laboratories' label. No shock hazard found. Acoustical quality on listening tests was mediocre. This set would have received a *B-Intermediate* rating if a higher-grade output transformer had been used and if the AM section had included a tuned r.f. stage. **2**



Lafayette AM-FM Radio, Model M-70, with Loop Antenna and Speaker

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Editor's Notes:
[1]Beyond the subscription price.
[2]Referring to the right of deduction from income of contributions to non-profit corporations, foundations, etc., organized and operated exclusively for certain purposes (including scientific and educational).

★ ★ ★ Corrections and Emendations to Consumers' Research Annual Cumulative Bulletin and Monthly Bulletins ★ ★ ★

Oil Burners
Col. 306
ACB '47-'48

Under LOW-PRESSURE ATOMIZING BURNER, change listing of *General Electric* from *B. Intermediate* to *A. Recommended*. Under HIGH-PRESSURE ATOMIZING "GUN" TYPE BURNER, delete listing of *General Electric*.

Domestic Oil Burners
Page 7, Col. 3;
Page 8, Col. 1
October '47

Under listing of *General Electric*, change the words *high-pressure gun burners* to *low-pressure gun-type burners*.

Winter Motor Oils
Col. 333
ACB '47-'48

The first sub-head should read SAE 10, 10W, instead of SAE 40, 10W.

Treatment of Damaged Trees
Page 25
September '47

Change name of *Corono Wound Paint* to *Corona Tree Wound Dressing*. This is a product of the Corona Chemical Div., Pittsburgh Plate Glass Co., 235 E. Pittsburgh Ave., Milwaukee 1.

Men's Shirts
Page 14, Col. 1
December '47

The manufacturer of the *Fruit of the Loom Shirt, tailored by Belnord*, was Abeles Shirt Co., 1150 Broadway, New York City, not I. Janov & Co. as shown in the listing.

Miscellaneous Motion Picture Equipment—a Plate and Film-Pack Camera—Slide Projectors

8 mm. Motion Picture Cameras

B. Intermediate

Perfex Magazine, Model A (Candid Camera Corp. of America, Chicago) $99.50. Three-lens turret, but equipped only with a fixed-focus f:2.5 lens at 13 mm. focal length. Can be operated at 8, 12, 16, 24, or 32 frames per second. Motor ran about 5 ft. of film per winding but slowed down near end of run. Camera operated with noticeable vibration; pictures, however, were steady. Uses standard *Kodak* magazines. Lens definition fair. This camera is judged superior to *Keystone K-8* or *Bolex L-8;* it would appear to warrant a low *B* rating. **2**

Revere Magazine, Model 70 (Revere Camera Co., Chicago) $127.50 with Bausch & Lomb *Animar* f:2.8 lens of 12.7 mm. focal length. (About $155 with 3-lens turret.) Camera can be operated at 16, 24, 32, 48, or 64 frames per second. Motor ran about 9 ft. of film per winding but slowed down near the end of the run. Operated smoothly, a notable improvement over the *Revere*, Model 88. Uses standard *Kodak* magazines. Lens definition fair; construction judged good. **2**

16 mm. Motion Picture Cameras

A. Recommended

Cine-Kodak Magazine, Model 16 (Eastman Kodak Co., Rochester 4, N. Y.) $175 with *Kodak Anastigmat* coated f:1.9 lens of 25 mm. focal length. Other interchangeable lenses available. Can be operated at 16, 32, and 64 frames per second. Finder forms part of handle of camera and was adjustable to give proper field of view for different available lenses. Had parallax correction. Motor, smooth in operation, ran about 10 ft. of film per winding; a positive stop prevented slowing down at end of run. Lens definition satisfactory and pictures when projected were steady. Takes standard *Kodak* 50-ft. magazines. **2**

Bolex H-16

Bolex H-16 (Swiss made, distributed by American Bolex Co., Inc., 521 Fifth Ave., New York 17) $282.50 less lens; $364.17 with *Eastman* f:1.9 lens; $466.25 with *Switar* f:1.4 lens. (Prices with lens include excise tax, no tax on camera.) Can be operated at 8, 16, 24, 32, and 64 frames per second. Had parallax-correcting view-finder. Motor ran about 18.5 ft. of film per winding without any tendency to slow down at end of run. Provision for single exposures and use of external motor if desired. Automatic threading, judged convenient but not particularly important. Operation smooth and quiet. *Eastman* f:1.9 lens with which camera tested was equipped, satisfactory and pictures projected were steady. Construction judged excellent. The *Switar* lens was not tested. **3**

B. Intermediate

Keystone A-7 (Keystone Mfg. Co., Boston) $74.50 with fixed-focus coated *Wollensak* f:2.5 lens of 25 mm. focal length. ($107.50 with f:1.5 coated lens.) Can be operated at 10, 16, and 64 frames per second, also at 4 other speeds (not marked) between 16 and 64 frames. Motor ran about 20 ft. per winding but slowed down noticeably near end of run. Operated noisily, with marked vibration and a grinding sound. Definition of f:2.5 lens fair, but pictures when projected showed noticeable flicker. Finish and workmanship judged mediocre. **1**

8 mm. Projectors

B. Intermediate

Kodascope Eight-90 (Eastman Kodak Co., Rochester, N.Y.) $175. f:1.6 coated lens of 1-in. focal length. Focused by rotation of lens in helical mount. 750-watt bulb. Operates on 100 to 125 volts d.c. or 25 to 60 cycles a.c. Speed controlled by rheostat. Reverse operation available, for projection or rewinding. Capacity of reel 200 ft. Field of lens not entirely flat, as either edges or center could be focused sharp, separately, but not simultaneously. Gate difficult to clean. Difficult to focus because of tightness of lens in mount and pitch of helix too steep to permit close focusing adjustment. High-wattage bulb considered unnecessary as *Ampro* with 500-watt bulb supplied sufficient light to project 8 mm. film to any degree of enlargement at which image would remain acceptable. Mechanical operation satisfactory. Projector was judged about equivalent to *Keystone R-8* and *Revere 85* and superior to the *Kodak Eight 33*, which it apparently replaces.

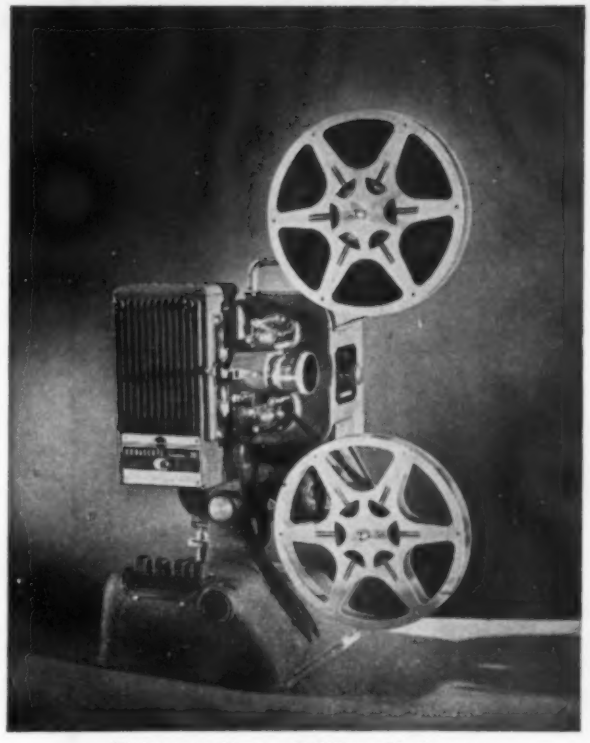
16 mm. Projectors —Silent

A. Recommended

Keystone K-160 (Keystone Mfg. Co., Boston) $119.50. f:1.6 *Wollensak* coated "Sunray" lens of 2-in. focal length. Equipped with 750-watt lamp. Can be operated on 115 volts a.c. or d.c. Power cord wound up automatically. Reverse operation at normal speed for projection and at much higher speed for rewinding. Single frames can be projected as still pictures. Lamp provided to give light for threading operation. Projector had provision for centering projection lamp (desirable). Easily threaded but noisy in operation. Operation was steady with good definition. Judged somewhat less ruggedly constructed than the *Kodascope Sixteen-20.* **1**

Kodascope Sixteen-20 (Eastman Kodak Co., Rochester, N.Y.) $245 including case. f:1.6 coated lens of 2-in. focal length (other lenses available). 500- or 750-watt lamp. Ventilation is claimed by manufacturer to be adequate for 1000-watt lamp when projector is to be used in a large auditorium, but smaller lamps are adequate for home use. Can be operated on 100 to 125 volts d.c. or 25 to 60 cycles a.c. Power cord wound up automatically. Reverse operation available at normal speeds for rewinding. Single frames can be projected as "still" pictures. A 6-watt bulb was provided for illuminating the controls and to provide light for threading operation. Bulb, which worked loose from vibration, went out several times during test; providing a bayonet instead of a screw socket would have eliminated this difficulty. Projector had provision for moving the projection lamp sidewise for proper centering (desirable). Projector was easily threaded but somewhat noisy in operation. Operation was steady with good definition. A satisfactory projector, but judged not as good as the Bell & Howell *Showmaster.* **2**

Ampro Imperial (Ampro Corp., 2835 N. Western Ave., Chicago 18) $276 including case. f:1.6 coated lens of 2-in. focal length (other lenses available). Can be operated on 105 to 125 volts d.c. or 25 to 60 cycles a.c. Power cord wound up automatically. Reverse operation at normal speeds for projection or at approximately 4.5 times normal speed for rewinding. Single frames may be projected as "still" pictures. Easily threaded. Very smooth and quiet in operation; projects steady pictures with good definition. Judged an excellent projector. **3**



Kodascope Sixteen-20 Silent Projector

16 mm. Sound Projectors

A. Recommended

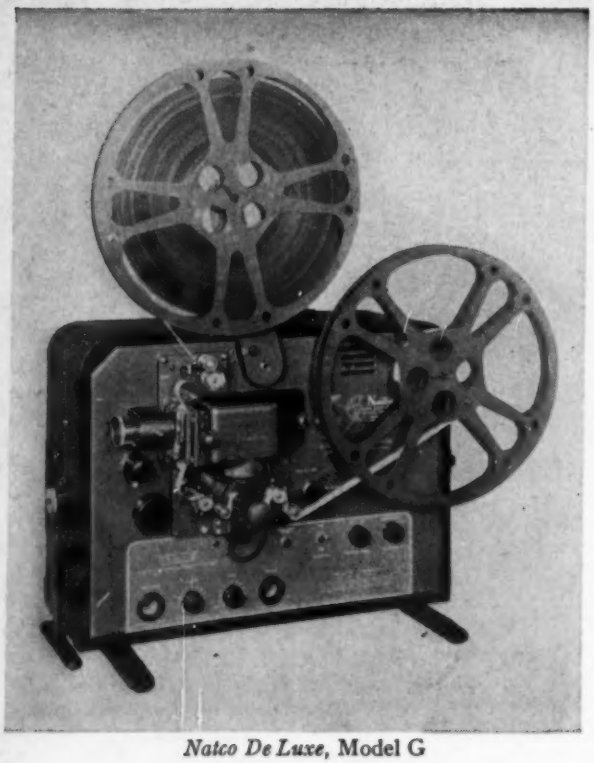
Natco De Luxe, Model G (Natco Inc., 505 N. Sacramento Blvd., Chicago 12) $469. Equipped with f:1.6 coated lens of 2-in. focal length made by Simpson Optical Co. 750- or 1000-watt lamp. Had individual treble and bass control. Film capacity 2000 ft. Speaker in separate carrying case. Operated at 16 (silent) or 24 (sound) frames per second. Easy to thread. Quality of projection and of sound, good, but sound quality judged not quite so good as that of Bell & Howell *Filmosound 179.* (This camera now being advertised by a well-known N.Y.C. dealer at $279.50 in factory-packed cartons.) **3**

RCA "400" Anniversary Model (Radio Corp. of America, Camden, N. J.) $541.50. Equipped with *RCA* f:1.6 coated lens of 2-in. focal length. 750- or 1000-watt lamp. Film capacity not stated, but judged to be about 2000 ft. Had automatic take-up on cable cord. Operated at 16 (silent) or 24 (sound) frames per second. Easy to thread. Quality of projection and sound good; judged equivalent to *Amprosound Premier-20.* **3**

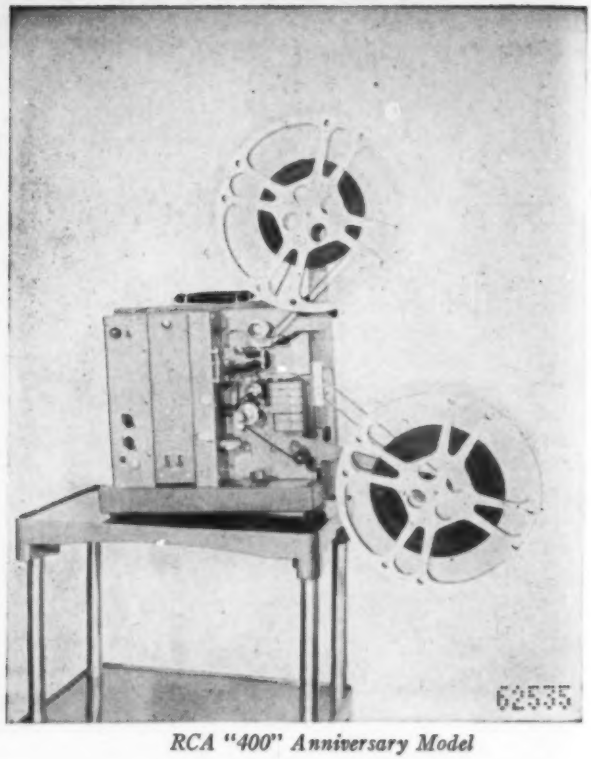
B. Intermediate

Victor Lite-Weight (Victor Animatograph Corp., Davenport, Iowa) $375. Equipped with coated f:1.6 lens of 2-in. focal length made by Simpson Optical Co. 750- or 1000-watt lamp. 400-ft. reel provided but will handle up to 2000-ft. reels. Operated at 16 (silent) or 24 (sound) frames per second. Design similar to that of larger *Model 60.* Weight reduced to 33 lb. by compact design. Quality of projection good, of sound fair; when turned up to full volume there was a tendency to blast. Would probably be reasonably satisfactory in a small or moderate-sized room. **2**

Victor, Model 60 (Victor Animatograph Corp., Davenport, Iowa) $468. Equipped with f:1.6 coated lens of 2-in. focal length made by Simpson Optical Co. 750- or 1000-watt lamp. Film capacity 2000 ft. Operated at 16 (silent) or 24 (sound) frames per second. Equipped with safety device to shut off projector automatically and prevent damage to



Natco De Luxe, Model G



RCA "400" Anniversary Model

film when running conditions tend toward film breakage or damage. Somewhat difficult to thread. Quality of projection, good; of sound, fair. **3**

C. Not Recommended

Sound Kodascope, Model FS-10-N (Eastman Kodak Co., Rochester, N.Y.) $500. Equipped with *Eastman* coated f:1.6 lens of 2-in. focal length. 750-watt lamp. Film capacity 1600 ft. Power cord wound up automatically. Moderately easy to thread. Noticeable vibration and noisy in operation. Pictures were unsteady and flickered badly. Sound quality of three projectors examined, not considered good; the deficiency could not be corrected by any adjustment of the "Fidelity Control." **3**

Still Projectors (For Slides Using 2-¼ x 2-¼ Inch and Larger Film)

B. Intermediate

Golde Master, Model 447 (Golde Mfg. Co., 1222-E W. Madison St., Chicago 7) $83.20 with case. Designed to take standard 3¼ x 4 in. lantern slides. 35 mm., Bantam, 2¼ x 2¼ in. and 2¼ x 3¼ in. transparencies are required to be mounted in standard 3¼ x 4¼ in. *glass* slides using masks available from manufacturer. Had 500-watt lamp, but instruction sheet stated 200- or 300-watt lamp could be used. Equipped with *Golde Anastigmat* lens of 6.5-in. focal length; speed not stated but estimated to be about f:4.5. Field was reasonably flat but had slight residual chromatic aberration; definition satisfactory. This projector, with 500-watt lamp, gave only slightly more effective illumination than that provided with the *Star D 120* projector with 150-watt lamp. Slide carrier of flimsy construction, judged unsatisfactory. For those interested in projecting slides not larger than 2¼ x 2¼ in. the *Star D 120* would be considered a better projector. **2**

Star D 120 (Davidson Mfg. Co., Los Angeles 32) $79.95. Designed for slides having outside dimensions of 2¾ x 2¾ in., using 2¼ x 2¼ in. film. Adapter provided for 2 x 2 in. slides using 35 mm. or Bantam size film. 150-watt lamp; f:4.5 coated anastigmat lens of 8-in. focal length marked *"Bray Optics."* Definition of lens about equivalent to that of the lenses on *Amproslide* and *T.D.C.* (reported in the July 1947 Bulletin). Field was reasonably flat but some residual chromatic aberration was shown by the appearance of color fringes when a blank slide was projected. This was not objectionable in projecting color film but should be corrected by the manufacturer. Friction-type focusing drive was smooth but tended to slip at times. Cast-aluminum finned housing dissipated heat satisfactorily; film did not overheat although housing itself was uncomfortably warm. Illumination and efficiency of condenser system about equal to that provided by *S.V.E.* 100-watt projector. With the 5-in. objective lens (not available at the time tests were made), it is believed illumination would be equal to that of the efficient *Bausch & Lomb* 150-watt projector (reported in the July 1947 Bulletin). Slide carrier was clumsy and difficult to use (slides pushed through by hand, each successive slide pushing out the one that preceeded it). The adapter for 2 x 2 in. slides was not provided with proper stops to position picture accurately. An undesirable feature was that the removal of slides required touching their faces with fingers. Slides made up from 2¼ x 2¼ in. glass and bound at the edges in the usual manner did not fit the carrier properly, hence slipped out if not carefully adjusted. (Slides made using the manu-

Photo Courtesy Davidson Mfg. Co.

Star D 120 Still Projector

facturer's binders were satisfactory in this respect.) This projector represents a good try. With proper correction of the defects mentioned, this projector would warrant an *A* recommendation. **2**

C. Not Recommended

Emde (Emde Products, 210 S. Western Ave., Los Angeles 4) $93.50. Designed for all sizes of slides up to 3¼ x 4 in. outside dimensions. 150-watt lamp; f:3.5 anastigmat lens of 5-in. focal length, by Villar Optical Co., Los Angeles. Definition of lens satisfactory for Bantam size slides. Some blurring of edges was noted in projecting 2¼ x 2¼ in. slides; projection of larger sizes would be unsatisfactory. Lens had some residual chromatic aberration but judged not objectionable in projection of color slides. Focal length of lens was same as that used in the smaller (2 x 2 in.) slide projectors, whereas most projectors for full-size slides use lenses of from 8 to 12-in. focal length. Helical-mount type focusing. Cast-aluminum housing with entirely inadequate provisions for cooling. Slide carrier, also of aluminum, worked smoothly but became uncomfortably hot after less than 45 minutes of continuous operation. Illumination was approximately half that obtained with the *S.V.E.* 100-watt projector at 33% less lamp wattage, and relative illumination per 100 watts lowest of any projector tested, and only one-third that of the best projector. **3**

Plate and Film-Pack Camera

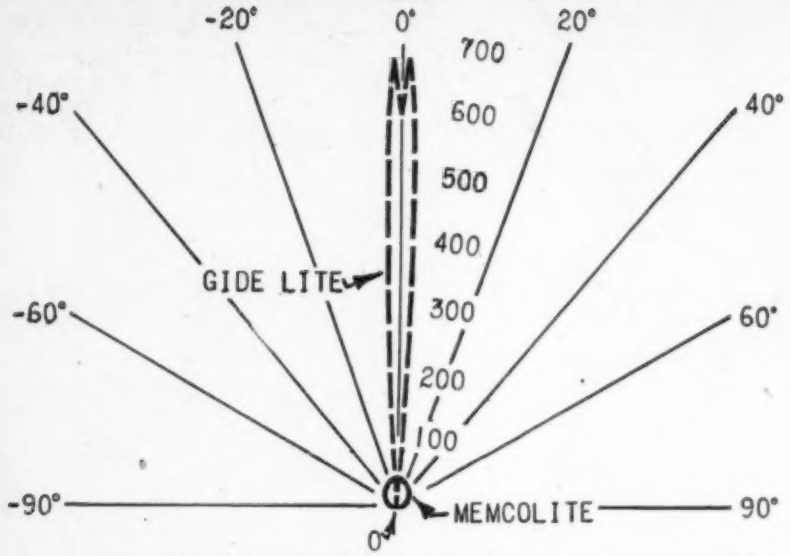
A. Recommended

Busch Precision Pressman (Busch Precision Camera Corp., 411 S. Sangamon, Chicago 7) $73.40 less lens. Takes pictures 2¼ x 3¼ in. on film pack, sheet film, or plates. Equipped with spring-type ground-glass back for *Graphic*-type holders. (Reversing or revolving back would have been much more useful than the fixed back provided.) Direct frame-type view-finder ("optical" [lens-type] finder available as an extra). Rising, sliding, and tilting adjustment for lens, also drop bed for use with wide-angle lens. Bellows had a 9-in. draw, which is at least double extension for the 105 mm. focal-length lens, which would be normal for this camera. Construction judged good. This camera considered substantially equivalent to the *Crown Graphic.* The *Busch* with same lens equipment would be about $37.75 cheaper than *Crown Graphic.*

Two Portable Electric Lamps

THE two portable lamps reported on in this article are the *Memcolite* and the *Gide Lite.* The former, which is a comparatively new development in portable lanterns, and which has been widely advertised in recent months, uses as its light source a small standard make 6-watt fluorescent lamp about 8 inches long. This is mounted in front of a white enameled reflector and was started and stopped by three switches located on the top of the case. Two 45-volt "B" batteries connected in series were used as the direct current source and were contained, along with the ballast and switches, inside the black crackled finished sheet metal cabinet. A black plastic handle was attached to the top of the case. A curved sheet of transparent plastic served as one side and was used as a protector for the lamp and reflector.

The *Gide Lite* was the more conventional lantern type of light; it was large and of heavy construction. It used a 2.4-volt incandescent bulb of the auto-headlight variety mounted at the approximate focus of a 3¾-in. parabolic reflector. In this lamp, the current was supplied by two No. 6 dry cells. (No. 6 is the large-size cell commonly used for doorbell purposes.) Cork gaskets were used to seal the top and glass protector frame to the case in an apparent attempt at waterproofing. The



Graph showing the light intensity patterns in candle power of the Gide Lite *and the* Memcolite. *The high intensity lighting with pronounced "beam" effect of the* Gide Lite *covering an angle of only about 5° and the nearly 180° coverage (at much lower intensity) of the* Memcolite *should be noted.*

lamp, however, was not waterproof, and leaked profusely around the switch and reflector when immersed in a pail of water.

The lanterns were tested for light distribution, reflector efficiency, and battery life, and showed widely differing characteristics.

The fluorescent light showed good distribution to a full 90° on each side of center, with only a slight beam effect. Due to its low candlepower, the usefulness of the lamp would be limited to the region immediately about it. Because of its wide beam, the lamp would seem to be a good one to carry in a car for use in changing a tire or other emergency operations, but the problem of battery replacement might involve difficulty or delay in some localities.

The *Gide Lite*, on the other hand, threw a powerful concentrated beam limited to a narrow angle (5° each side of center) and would be useful where a directed beam would serve, for instance on a farm for locating livestock which had become lost or for use in an automobile as a portable searchlight for reading signposts, etc.

Gide Lite

The *Memcolite* was found to be very expensive to operate. Although the advertisement stated that it would burn from 50 to 75 hours, it was found that after it had been operated intermittently for a total of only 17 hours in 9 days, the light output had diminished by about ⅓ and the batteries were in need of replacement. (The light required more than 70 volts for operation; the initial voltage available with fresh batteries priced at something over $1 apiece was 90 volts.) The operating cost was approximately 12c per hour using the batteries supplied.

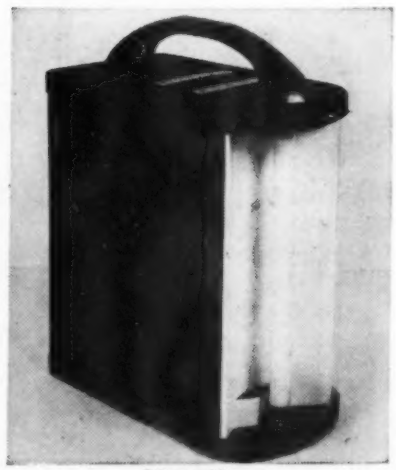
The *Gide Lite*, although its light output decreased in about the same ratio (about 40% decrease after 15 hours), continued to give light (roughly 31% of the original light output) after 39 hours of intermittent use, so that neglecting light efficiency it would be much less expensive to use (2.3c per hour for batteries).

A. Recommended

Gide Lite Incandescent Portable Lamp (Lamp Industries, Inc., 10 Murray St., New York 7) $6.29, including sales tax. 7¾ lb. Well made case of molded metal, finished in Navy gray. Rigid sheet metal handle spot welded to case top. Reflector protector was 3/16 in. plate glass. Case showed strain cracking at one corner apparently caused during manufacture. 2.4 volt automobile-type bulb, powered by two standard No. 6 dry cells. Switch serviceable but on-off positions not marked. Reflecting surface not very well polished (only 31% efficient). 3

B. Intermediate

Memcolite Fluorescent Portable Lamp (purchased from Stumpp & Walter, 132 Church St., New York 7) $14.95. Replacement batteries, as furnished,



Memcolite

cost $2.10 per set. 7¼ lb. Workmanship and quality of parts average. Case of sheet metal with black stippled finish, size 4½ in. wide, 8¼ in. long, and 9 in. high. Three control switches mounted under handle. Was difficult to start and required use of both hands (3 switches used) when battery voltage was low. Six-watt fluorescent lamp powered by two 45-volt "B" batteries. Reflector, white enameled sheet metal (63% efficient). Instructions for starting and operating included. It should be noted that the cost of burning this light for the 17-hour period with dry batteries was about $2.10. Burning same lamp on the usual house lighting circuit would have cost 1/3 of a cent. This shows very concretely the extremely high cost of lighting when dry batteries are used. 3

Three Low-Priced Phonograph Turntable Units

For maximum fidelity of reproduction and minimum wear on records, a well-designed simple turntable is to be preferred to an automatic record changer. Most record changers cause excessive wear on the center hole of a record, because the center pin does not revolve with the record; some chip or break records. A record changer requires a relatively heavy pickup, and the angle of the needle on the record varies widely with the number of records under the one being played at the time; both factors cause a high rate of record wear and impair fidelity of reproduction. With a simple turntable and no changer mechanism, on the other hand, the user is free to select a pickup with good tracking, low needle pressure, high compliance (needle moving relatively freely when displaced horizontally, crosswise to the tonearm), and good reproduction qualities. Thus he can obtain a maximum of fidelity with minimum damage to records through wear and rough handling. Besides, a properly constructed turntable unit should operate for a long time without requiring repair or adjustment, while changers are quite susceptible to derangement in use, which may call for difficult and expensive servicing.

The turntable and its motor should be of simple and rugged construction, and should operate at constant speed regardless of any ordinary fluctuations in line voltage. Any variation in speed during a revolution produces the unpleasant wavering effect known as "wow." Theoretically, the speed of the turntable should be the same as the speed at which the recording was made, which for most 10- and 12-in. records is 78.25 revolutions per minute. A higher speed of play-back raises the pitch of reproduction as compared with that of the music recorded, and a lower speed lowers the pitch, but the turntable speed can, if it is steady, be a few revolutions per minute above or below the optimum without any significant effect on fidelity of the reproduction.

Expensive turntables ($125 up) provide a high degree of constancy in speed and use a very heavy turntable (7 lb. or more), with its weight concentrated as far as possible from the center pin; this means a turntable of generous diameter and with a heavy rim. In any case, the motor should have sufficient power to accelerate the turntable rapidly when starting, and should be practically unaffected by small changes in line voltage. The plane of the turntable should be accurately horizontal as it rotates; riding up and down of the pickup caused by uneven operation of the turntable may produce rumble that will be heard through the speaker.

A unit consisting of motor and turntable with rim drive in general operates smoothly, although producing a marked hum and some rumble that will be heard directly. To minimize such noises, the unit should be mounted in an enclosed cabinet. Units of this type should not be left idle over extended periods of time because the rubber idler wheel may become permanently deformed, and will then cause uneven operation.

For playing ordinary records, the motor should operate at a single speed only. (There is one exception to this: for a few record purchasers who play an instrument with the so-called "*Add-A-Part*" records, a speed control is desirable, so that the record may be pitched to the instrument being played by the user—when it is not practicable to pitch the instrument to the record.)

The units tested by CR were rim-driven by constant speed motors operating on 60-cycle alternating current. All motors were shock-mounted, and all units had oilless bearings All were easily mounted by cutting a rectangular hole in

the mounting board and inserting three or four screws.

A. Recommended

General Industries, Model RM4 (General Industries Co., Elyria, Ohio) $9.06. Turntable 10 in. in diameter; weight 2 lb. 14 oz.; heavy rim. Center pin rotates with record (desirable feature). Utilized an off-center retractable pin which fits the off-center hole on blank recording disks so that recordings can be cut on same turntable when desired. Total weight of unit, 7 lb. 10 oz. Rated voltage, 115; rated and measured speed, 80 rpm.; measured power input at 115 volts, 32 watts. Temperature rise of 47°C, considered excessive. Motor had the greatest torque (pulling power) of those tested; this was adequate even at 105 volts. Slight vertical wobble, but on listening test no wavering was noticed, and the rumble (electrical) was low.

B. Intermediate

Alliance Even Speed, Model 80 (Manufacturer's name not stated) $3.83. Turntable 9 in. in diameter; weight 1 lb. 5 oz.; light rim. Center pin rotates with record. Total weight of unit, 2 lb. 14 oz. Rated voltage, 115; measured speed, 81 rpm.; measured power input at 115 volts, 18 watts. Temperature rise of 27°C, the lowest of the motors tested. Motor torque least of units tested, especially at 105 volts, but nevertheless appeared to be sufficient for the purpose. Noise level (mechanical), lower than that of other motors tested. Least up-and-down wobble of units tested, and on listening test, there was no wavering except to a slight extent when operated at 105 volts.

C. Not Recommended

Webster, Model M 15 (Webster-Chicago Corp., Chicago) $5. Turntable 9 in. in diameter; weight 1 lb. 7 oz.; light rim. Center pin stationary (an undesirable feature). Total weight of unit, 4 lb. 10 oz. Rated voltage, 117 or 235; measured speed, 78 rpm.; measured power input at 115 volts, 22 watts. Temperature rise of 42°C, considered excessive. Torque was intermediate between that of the *General Industries* unit and that of *Alliance* unit; was adequate even at 105 volts. High level of noise and rumble (mechanical). Considerable up-and-down wobble. On listening test no wavering was noticeable, but there was rumble (electrical) attributable to the vertical wobble.

Today's Radio and Television

Not What They Ought to Be

Radio

THE *audio systems* of many of today's high-priced radio receivers are far inferior to those of most pre-war sets of comparable grade or scope. It was the former practice to use push-pull power output tubes. Now a good many sets use a single "beam power tube" for output. This is a bad arrangement, as the inherent second harmonic distortion in beam power tubes, used singly instead of in pairs, is high.

The *output transformers* of the new sets often use a far too small amount of material. Whereas they should weigh eight to ten pounds to be of proper grade, they actually weigh only one or two pounds, in sets purporting to be of high quality.

A *tuned-radio-frequency stage*, which is very important in superheterodyne receivers and should be present in all above the very lowest price level, is omitted, even from many of the new high-priced sets.

Most of the *AM-FM radios* on the market priced under about $500 will give little improvement in FM reception (as to fidelity of reproduction) as compared with the amplitude modulation (AM) reception. In other words, it will often be the case that the potentialities of FM reception are not realized, though the consumer will pay for FM and AM-FM receivers as though they were capable of fine performance. This results from skimped design and use of poor component parts. Actually the advent of FM presents the radio manufacturing and broadcasting companies with an opportunity to "clean house" without losing face with consumers, but there are a number of indications that they do not propose to do this; that instead of making FM sets as good as they ought to be made and easily could be made, they will sell many that are no better than the amplitude modulation (AM) sets they are to supplant.

A good deal of the distortion which apparently inheres in AM broadcasting may be the result of badly designed *detectors*. If appreciable "a-c shunt loading" is present, distortion as high as 20% can be developed when there is a high modulation level in the signal. The practice of obtaining the automatic-volume-control voltage from the detector, and the use of a grid resistance in the tube following the detector

which is closely equal to the diode load resistance, make occurrence of such distortion a certainty.

In places over 50 to 100 miles from the majority of stations which are to be listened to, an *outside antenna* is more important than most users are likely to assume. Dealers have made much lately of the convenience of a built-in antenna, but do not, of course, point out that such an antenna, though useful at points quite close to a powerful broadcasting station, carries heavy penalties in the way of noise level and poor reception for people who are located at a considerable distance from the transmitting station, or whose nearest stations are of low power. For AM, the antenna should be about 50 feet long, should be as high as practicable, and *located well away from power lines including those that feed the house* and, so far as possible, away from all other electric wiring. The antenna should never be above nor below a power line, or near enough to one that under any circumstances a wire blown down or loosened by sleet or wind could fall upon or be deflected even by a wind of gale force to a position where it could come into contact with the antenna wire.

Dealers and manufacturers often make a feature of *inverse feedback* in their amplifiers, but inverse feedback is not a cure-all and is not a way of making a good amplifier out of a poor one. A very important requirement which is little regarded in radio-set and amplifier advertising is that the amplifier should be capable of giving substantially full power over the full audio range, not just in the middle range. It is in this respect that inferior output transformers do their harm, while the manufacturer by his skimping saves only a small sum, perhaps $3 at most, on a large and expensive radio-phonograph.

The so-called "*Television Connection*" or connection for *television sound* in a radio receiver has nothing to do with television at all. It is just another name for the familiar connection to feed the output from a phonograph pickup into a receiver. Its cost to the manufacturer is only a few cents. (The only exception will be in the case of one or two very high-priced sets where the receiver may be used for sound output in connection with television.)

Television

ACCORDING to a story in the Chicago Daily Tribune, based upon information from Broadcasting magazine (Washington, D. C.), there are about 58,000 television sets in use, with new sets being manufactured at a rate of about 11,000 a month. The big sales at this time are to taverns, for taverns or "juke joints" near big cities having television transmitters can hardly get along without television, if any other merchant in the same industry near by has installed one. So important is television to barrooms and similar spots that some near Consumers' Research have spent around $200 to $400, perhaps up to $600, for a special 100- to 150-foot antenna on a latticed tower alone, as an expensive antenna installation was necessary to correct for the disadvantage of location and distance which would have otherwise made reception uncertain or unsatisfactory.

It is understood that there are only about 8 television transmitting stations in operation (although one authority reports 11). It is said 59 constructional permits have been granted, and 11 applications are on file. Nevertheless television represents a very small part of America's home entertainment program at the present time, for less than 1/10% of the homes in the country have television reception, according to the release by Broadcasting.

The future of television is perhaps bright, but it will be a lot brighter when the full-size sets do not cost as much as a luxury-grade automobile. The people most concerned will be those interested in sports. For sports events, television viewing is a very popular diversion, which may account for the extreme interest in television pictures on the part of those who visit taverns and bars. The average person interested in television in the home should perhaps go a bit slow at the present time, unless he doesn't mind risking a considerable investment. (Tavern operators, on the other hand, find television so profitable from the standpoint of extra income, that a loss of an investment after a few months or a year will often be a matter of no particular concern.)

* * *

In the very near future it is expected that there will be a number of television receivers available at very much lower prices than any "standard-make" receivers hitherto offered. Several manufacturers are bringing out sets of simplified ("transformerless") design at prices around $185. These may represent an expected and long-delayed step toward popularization of television sets for the average man's home.

Off the Editor's Chest

[*Continued from page 2*]

the private expenditures of individuals. Such laws appeared at an early date in the history of Europe and go back at least to 215 B.C. in the days of the Roman Empire. In Rome sumptuary laws were enacted in an attempt to force the people to return to the simplicity of living of earlier days. The kinds of food to be served were restricted, and women, for example, could not possess more than a half ounce of gold or wear a dress made of different colored materials. The historian, J. M. Vincent, suggests that these restrictive laws were induced by the nobility who saw in the growing wealth of those who had profited by the Roman conquests a threat to their own power and influence.

In France and England from time to time the use of expensive apparel, gold and silver embroidery, and fine linens were forbidden certain classes of people, in efforts to restrain undue expenditure.

In Japan, at one era, the size of a house and the kind of materials that might be used in its construction were prescribed by Imperial edict.

The Social Science Encyclopaedia further refers to sumptuary laws as "a representative expression of paternalism in government" and comments:

> They are enacted generally when customs and conditions of life are changing and are intended to correct departures from more ancient ways. Directed against the outward manifestations of economic transition, sumptuary laws are always difficult to enforce, for the extravagance which they attempt to curb are reflections of fundamental transformations in social life rather than causative factors themselves.

There is considerable food for thought in those observations. Is it not probable that those in the seats of power who have been talking about the "more abundant life" for "the common man" for the last decade or so are just the people who don't really want him to have the privilege of determining *for himself* just what things and services make life "more abundant" for him and his family? Are not the officials laboring under the misapprehension that they and they alone have the wisdom to determine what shall be produced or manufactured and at what price it shall be sold, and who shall be permitted to buy it in limited or unlimited amounts?

It is important to remember that not all who make vociferous protestations of goodwill for mankind are really interested in the economic welfare of individual citizens. They may be, and often are, far more concerned to achieve some goal that the common man would not even recognize, much less be in favor of. Such policies are, of course, essentially reactionary, doomed to failure because they seek to fit human conduct and aspirations into a fixed mold set by outsiders—who always find means to exempt themselves from the regimes they set up to control the going and coming and spending of others.

★★★

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Ratings of Motion Pictures

THIS section aims to give critical consumers a digest of opinion from a wide range of motion picture reviews, including the motion picture trade press, leading newspapers and magazines—some 19 different periodicals in all. The motion picture ratings which follow thus do not represent the judgment of a single person, but are based on an analysis of critics' reviews.

The sources of the reviews are:

Box Office, Charm, Chicago Daily Tribune, The Christian Century, Cue, Daily News (N.Y.), *The Exhibitor, Harrison's Reports, Motion Picture Herald, National Legion of Decency List, Newsweek, New York Herald Tribune, New York Times, Parents' Magazine, Release of the D.A.R. Preview Committee, Successful Farming, Time, Variety* (weekly), and *Unbiased Opinions of Current Motion Pictures* which includes reviews by the General Federation of Women's Clubs, the American Legion Auxiliary, National Film Music Council, and others.

The figures preceding the title of the picture indicate the number of critics who have been judged to rate the film A (recommended), B (intermediate), and C (not recommended) on its entertainment values.

Audience suitability is indicated by "A" for adults, "Y" for young people (14-18), and "C" for children, at the end of each line.

Descriptive abbreviations are as follows:

adv—adventure
biog—biography
c—in color (Technicolor, Cinecolor, Trucolor, Magnacolor, or Vitacolor)
car—cartoon
com—comedy
cri—crime and capture of criminals
doc—documentary
dr—drama
fan—fantasy
hist—founded on historical incident
mel—melodrama
mus—musical
mys—mystery
nov—dramatization of a novel
rom—romance
soc—social problem drama
trav—travelogue
war—dealing with the lives of people in wartime
wes—western

A	B	C		
—	3	9	**Adventure Island**	*adv-c A*
—	3	2	**Along the Oregon Trail**	*mus-wes-c AYC*
—	1	3	**Always Together**	*com A*
—	3	1	**Angels of the Streets**	*soc-dr AY*
—	2	4	**Anything for a Song**	*mus-dr A*
—	—	3	**Arnelo Affair, The**	*cri-mel A*
1	14	1	**Bachelor and the Bobby-Soxer, The**	*com AY*
—	3	1	**Bandits of Dark Canyon**	*wes AYC*
—	3	—	**Beauty and the Beast**	*fan A*
—	6	1	**Bells of San Angelo**	*mus-wes-c AYC*
—	2	6	**Beware of Pity**	*dr A*
—	4	2	**Big Town After Dark**	*cri-mel A*
1	8	3	**Bishop's Wife, The**	*fan A*
3	7	3	**Black Gold**	*dr-c AYC*
1	6	8	**Black Narcissus**	*dr-c A*
—	1	8	**Blackmail**	*mys-mel A*
—	1	4	**Blonde Savage**	*adv AY*
—	5	3	**Blondie in the Dough**	*com AYC*
—	—	6	**Blue Veil, The**	*dr A*
2	5	1	**Bob, Son of Battle**	*dr-c AY*
1	13	3	**Body and Soul**	*dr A*
—	4	2	**Bowery Buckaroos**	*com AYC*
—	6	8	**Brute Force**	*cri-mel A*
—	—	4	**Buckaroo from Powder River**	*wes AYC*
—	1	5	**Bulldog Drummond at Bay**	*mys-mel AYC*
—	3	2	**Bulldog Drummond Strikes Back**	*mys-mel AY*
—	4	5	**Burning Cross, The**	*dr A*
—	2	7	**Bury Me Dead**	*cri-mel A*
—	9	1	**Bush Christmas**	*mel YC*
—	5	1	**Captain Boycott**	*hist-dr A*
1	4	2	**Captain from Castile**	*hist-dr-c A*
—	2	5	**Caravan**	*adv A*
—	3	4	**Carnival of Sinners**	*dr A*
—	—	3	**Case of the Baby Sitter**	*com A*
2	8	2	**Cass Timerlane**	*nov A*
—	3	1	**Check Your Guns**	*mus-wes AYC*
—	2	1	**Cheyenne Takes Over**	*wes AYC*
—	1	2	**Children on Trial**	*doc-dr A*
—	2	1	**Chinese Ring, The**	*mys-mel AYC*
—	5	10	**Christmas Eve**	*dr A*
—	—	3	**Code of the Saddle**	*wes AYC*
—	2	2	**Colonel Chabert**	*dr A*
—	2	3	**Comedy Carnival**	*com-c A*
—	3	9	**Corpse Came C.O.D., The**	*cri-com A*
—	2	5	**Crime Doctor's Gamble, The**	*cri-mel A*
—	4	3	**Crimson Key, The**	*mys-mel A*
2	13	4	**Crossfire**	*soc-mel A*
—	3	10	**Cry Wolf**	*mys-mel A*
—	4	2	**Daisy Kenyon**	*dr A*
—	8	6	**Dark Passage**	*nov A*
1	13	3	**Dear Ruth**	*com AY*
—	8	8	**Deep Valley**	*mel A*
—	3	12	**Desert Fury**	*mel-c A*
—	2	10	**Desire Me**	*war-dr A*
—	—	4	**Devil Ship**	*mel A*
—	2	6	**Devil's Envoys, The**	*fan A*
—	4	5	**Dick Tracy Meets Gruesome**	*mel A*
2	11	6	**Down to Earth**	*mus-fan A*
—	4	2	**Dragnet**	*cri-mel AY*
—	4	3	**Driftwood**	*dr AYC*
—	1	4	**Elixir of Love**	*mus-dr A*
1	3	6	**Escape Me Never**	*dr A*
—	6	1	**Exile, The**	*hist-dr AY*
—	1	6	**Exposed**	*cri-mys AY*
—	7	7	**Fabulous Dorseys, The**	*mus-biog AYC*
—	4	1	**Fabulous Texan, The**	*mel A*
—	1	3	**Farewell, My Beautiful Naples**	*mus-dr A*
3	8	4	**Fiesta**	*mus-dr-c AY*
—	1	3	**Fighting Vigilantes**	*wes AYC*
—	—	3	**Flashing Guns**	*wes AYC*
3	5	11	**Forever Amber**	*dr-c A*
—	8	7	**Foxes of Harrow, The**	*adv A*
—	10	3	**Frieda**	*war-dr A*
1	6	3	**Fugitive, The**	*dr A*
—	13	4	**Fun and Fancy Free**	*mus-car-c AYC*
—	3	—	**Furia**	*mel A*
—	4	6	**Gangster, The**	*mel A*
—	—	6	**Gas House Kids Go West**	*com AY*
—	—	6	**Gas House Kids in Hollywood**	*mys-mel AYC*
4	10	2	**Gentleman's Agreement**	*dr A*
2	14	3	**Ghost and Mrs. Muir, The**	*fan A*
—	—	5	**Ghost Town Renegades**	*wes AYC*
—	4	1	**Girl of the Canal, The**	*dr AY*
—	9	7	**Golden Earrings**	*war-mel A*
—	8	2	**Good News**	*mus-com-c AYC*
—	1	3	**Great Betrayal, The**	*doc A*
—	4	1	**Great Dawn, The**	*mus-dr A*
—	1	2	**Great Glinka, The**	*mus-biog A*
—	—	5	**Green Cockatoo, The**	*cri-mel A*
1	4	8	**Green Dolphin Street**	*dr AY*
—	13	2	**Green for Danger**	*mys-mel A*
1	7	5	**Gunfighters**	*wes-c A*
—	—	—	**Hal Roach Comedy Carnival** (See Comedy Carnival)	
—	1	3	**Hat Box Mystery, The**	*mys-mel A*
—	3	4	**Heartaches**	*mus-mel AYC*
—	6	9	**Heaven Only Knows**	*fan A*
—	11	6	**Her Husband's Affairs**	*com AY*
1	4	1	**High Tide**	*cri-mel A*
1	2	—	**High Wall**	*mel A*
—	4	2	**Homesteaders of Paradise Valley**	*wes AYC*
2	11	3	**Hucksters, The**	*nov A*
—	3	9	**Hungry Hill**	*dr A*
2	13	3	**I Know Where I'm Going**	*dr A*
—	2	1	**I Love Trouble**	*mys-mel A*

A	B	C		
—	2	3	**I Walk Alone**	*cri-mel A*
1	9	4	**I Wonder Who's Kissing Her Now**	*mus-com-c A*
—	3	1	**In Self Defense**	*mel A*
—	2	1	**In the Name of Life**	*dr A*
—	3	8	**Invisible Wall, The**	*cri-mel A*
1	4	6	**It Had to be You**	*com A*
—	7	7	**Ivy**	*mys-mel A*
—	4	—	**Joe Palooka in the Knockout**	*mys-mel AY*
—	3	5	**Keeper of the Bees**	*rom AYC*
—	2	8	**Key Witness**	*cri-mel A*
—	1	4	**Killer at Large**	*cri-mel A*
—	4	2	**Killer Dill**	*cri-com A*
1	5	1	**Killer McCoy**	*mel A*
—	4	4	**Kilroy Was Here**	*com AY*
2	3	2	**King's Jester, The**	*mel A*
3	12	2	**Kiss of Death**	*mys-mel A*
—	6	3	**Lady Surrenders, A**	*rom A*
—	3	2	**Last Frontier Uprising**	*mus-wes-c AYC*
—	2	7	**Last of the Red Men**	*nov-c AYC*
—	6	—	**Last Round-Up, The**	*mus-wes AYC*
—	—	5	**L'Atalante**	*dr A*
—	—	3	**Law Comes to Gunsight**	*wes AYC*
4	14	1	**Life With Father**	*com-c AYC*
—	1	4	**Linda Be Good**	*mus-com A*
—	2	4	**Little Miss Broadway**	*com A*
—	5	11	**Living in a Big Way**	*mus-dr A*
—	4	4	**Lone Wolf in London, The**	*mys-mel A*
1	7	5	**Long Night, The**	*dr A*
—	3	7	**Lost Moment, The**	*dr A*
—	4	1	**Louisiana**	*mus-biog AY*
—	5	8	**Love from a Stranger**	*cri-mel A*
—	8	5	**Love Laughs at Andy Hardy**	*mus-com AY*
—	1	2	**Lucia di Lammermoor**	*mus-dr A*
2	10	5	**Lured**	*cri-mel A*
—	7	6	**Magic Town**	*dr A*
—	9	3	**Man About Town**	*com A*
—	1	2	**Man Within, The**	*mel-c A*
—	2	4	**Marauders, The**	*wes AYC*
—	1	3	**Marco Visconti**	*adv A*
—	3	2	**Marshall of Cripple Creek**	*wes AYC*
—	8	6	**Merton of the Movies**	*com A*
—	—	4	**Midnight in Paris**	*cri-mys A*
—	1	5	**Millerson Case, The**	*cri-mel A*
—	10	6	**Moss Rose**	*mys-mel A*
—	10	4	**Mother Wore Tights**	*mus-com-c AY*
—	3	8	**Mourning Becomes Electra**	*dr A*
—	4	3	**Murderer Lives at Number 21, The**	*mys-mel A*
—	1	5	**My Father's House**	*doc-dr A*
—	4	—	**My Wild Irish Rose**	*mus-biog-c AY*
—	6	5	**Nicholas Nickleby**	*nov AY*
—	4	3	**Night Song**	*mus-dr A*
—	6	11	**Nightmare Alley**	*mel A*
—	4	1	**On the Old Spanish Trail**	*mus-wes-c AYC*
—	—	4	**Oregon Trail Scouts**	*wes AYC*
—	6	5	**Out of the Blue**	*com A*
—	7	9	**Out of the Past**	*mys-mel A*
—	5	3	**Pacific Adventure**	*dr AYC*
2	5	—	**Panic**	*cri-mel A*
2	12	1	**Perils of Pauline**	*mus-com-c AY*
—	5	2	**Philo Vance's Secret Mission**	*cri-mel AY*
—	1	5	**Pioneer Justice**	*wes AYC*
—	2	8	**Pirates of Monterey**	*mel-c A*
1	7	8	**Possessed**	*dr A*
—	—	3	**Prairie Express**	*wes AYC*
—	1	7	**Pretender, The**	*cri-mel AY*
—	2	2	**Queen's Necklace, The**	*hist-dr A*
—	4	4	**Railroaded**	*cri-mel AY*
1	6	8	**Red Stallion, The**	*dr-c AYC*
—	8	8	**Repeat Performance**	*fan A*
—	2	3	**Return of Rin Tin Tin**	*dr-c YC*
—	1	4	**Return of the Lash**	*wes AYC*
—	4	1	**Revenge**	*war-dr A*
—	12	3	**Ride the Pink Horse!**	*cri-mel A*
—	6	5	**Riff-Raff**	*mel A*
1	5	—	**Road to Rio**	*mus-com AY*
—	—	4	**Road to the Big House**	*mel A*
—	1	2	**Robin Hood of Monterey**	*wes AYC*
—	3	2	**Robin Hood of Texas**	*mus-wes AYC*
—	14	3	**Romance of Rosy Ridge**	*mus-dr AY*
—	10	2	**Roosevelt Story, The**	*doc AY*
—	3	3	**Roses Are Red**	*cri-mel A*
—	3	2	**Russian Ballerina**	*mus-com A*
—	4	2	**Rustlers of Devil's Canyon**	*wes AYC*
—	5	9	**San Quentin**	*mel A*
—	—	4	**Scared to Death**	*mys-c A*
—	4	—	**Schoolgirl Diary**	*dr AYC*
—	3	6	**Second Chance**	*mys-mel AY*
2	12	2	**Secret Life of Walter Mitty, The**	*mus-com-c AY*
—	3	—	**Senator Was Indiscreet, The**	*com A*
—	3	2	**Sepia Cinderella**	*mus-com A*
—	1	3	**Shadow Valley**	*mus-wes AYC*
—	1	2	**She Returned at Dawn**	*dr A*
2	6	4	**Shoe Shine**	*dr A*
—	5	—	**Shop Girls of Paris**	*dr A*
—	5	11	**Singapore**	*mel A*
—	4	9	**Slave Girl**	*com-c A*
—	2	1	**Smoky River Serenade**	*mus-wes AYC*
1	7	6	**So Well Remembered**	*war-dr A*
—	7	5	**Something in the Wind**	*mus-com A*
—	3	4	**Son of Rusty, The**	*dr AYC*
3	7	7	**Song of Love**	*mus-dr AY*
2	4	—	**Song of My Heart**	*mus-dr AYC*
—	6	6	**Song of the Thin Man**	*mys-mel A*
—	1	3	**Song of the Wasteland**	*mus-wes AYC*
—	7	4	**Spirit of West Point, The**	*dr AYC*
—	4	3	**Sport of Kings**	*dr AYC*
—	3	1	**Springtime in the Sierras**	*mus-wes-c AY*
—	—	7	**Stepchild**	*soc-dr A*
—	1	7	**Stork Bites Man**	*com AY*
—	3	—	**Story of Tosca, The**	*mus-dr A*
—	2	3	**Sweet Genevieve**	*mus-com A*
—	—	3	**Swing the Western Way**	*mus-wes AYC*
—	8	4	**Swordsman, The**	*dr-c AYC*
—	—	3	**Symphonie Fantastique, La**	*mus-biog A*
—	3	—	**T-Men**	*doc-dr AYC*
1	6	3	**Tawny Pipit, The**	*com AYC*
1	4	—	**Tender Years, The**	*dr AYC*
—	3	11	**That Hagen Girl**	*dr A*
—	1	4	**That's My Gal**	*mus-com-c A*
1	7	4	**This Time for Keeps**	*mus-com-c A*
—	3	2	**Thunder in the Valley**	*dr-c AYC*
2	8	—	**To Live in Peace**	*war-mel AY*
—	3	2	**Too Many Winners**	*cri-mel A*
—	6	3	**Trespasser, The**	*mys-mel A*
—	—	4	**Twins**	*com A*
—	1	5	**Two Blondes and a Redhead**	*mus-com A*
—	2	3	**Tycoon**	*mel-c AY*
—	7	7	**Unconquered**	*hist-c A*
—	6	1	**Under the Tonto Rim**	*wes AYC*
1	7	5	**Unfaithful, The**	*dr A*
2	9	5	**Unfinished Dance, The**	*mus-dr-c AY*
—	7	4	**Unsuspected, The**	*mys-mel A*
—	3	5	**Untamed Fury**	*mel A*
—	2	9	**Upturned Glass, The**	*cri-dr A*
—	—	5	**Vacation Days**	*mus-wes AYC*
1	11	3	**Variety Girl**	*mus-com-c AY*
—	5	5	**Vigilantes Return, The**	*wes-c AYC*
—	3	4	**Vow, The**	*dr A*
—	—	3	**We Lived Through Buchenwald**	*war-doc A*
2	13	2	**Web, The**	*cri-mel A*
—	2	6	**Web of Danger**	*mel A*
—	—	6	**When a Girl's Beautiful**	*mus-com A*
—	9	4	**Where There's Life**	*com A*
—	1	3	**Whispering City**	*cri-mel A*
—	—	3	**White Stallion**	*wes AYC*
—	2	3	**Wild Frontier, The**	*wes AYC*
—	7	13	**Wild Harvest**	*mel A*
—	2	2	**Wild Horse Mesa**	*mus-wes AYC*
—	2	3	**Winner, The**	*mus-dr A*
—	4	2	**Winter Wonderland**	*rom A*
—	7	3	**Wistful Widow of Wagon Gap, The**	*com A*
—	6	4	**Wyoming**	*wes AYC*
—	—	5	**Zero de Conduite**	*dr A*
—	—	3	**Zygmunt Kolosowski**	*war-dr A*

The Consumers' Observation Post

(Continued from page 4)

but intensive attack of tooth decay. Subsequently the saliva neutralizes the acid that is formed. But, reports Science News Letter, not everyone has saliva that is sufficiently acid-neutralizing. Special diets can produce a better quality saliva, but they are not always popular. For those who cannot cut down on or give up sweets and who do not wish to go on a special diet, dental researchers propose to have manufacturers incorporate a chemical in sugar that will stop acid formation by checking the ferment that forms the acid. Doubtless we may expect in the not too distant future to see advertisements which actually claim that certain brands of candy are "good for your teeth."

* * *

ASPIRIN, on the whole, has been considered a relatively safe pain killer. From time to time, however, there have appeared reports of fatalities from its use. Two cases of death from acetylsalicylic acid ("aspirin") poisoning have been reported in a recent issue of the Journal of the American Medical Association which suggest the need for some caution in the use of this drug. The symptoms of unfavorable reaction to it range from headache, dizziness, and vertigo, to stupor, coma, and even death.

* * *

STRETCHING THE FAMILY FOOD DOLLAR has become a matter of urgent concern to many women. The search for low-priced foods has increased the sale of some products and reduced the demand for others, reports The Wall Street Journal. Sales of spaghetti and macaroni are reported to be booming, as women turn to spaghetti-with-cheese dishes as substitutes for meat. The demand for cheese and margarine is called "terrific" by an official of a large dairy products company. Canned fruit and jams and jellies, however, are not whisked off the grocer's shelves as they were back in the days of rationing. Perhaps current radio and newspaper talk of a possible return to rationing and price control will have some effect in increasing the sales of these once-scarce items.

* * *

THREE NEW BOOKS ABOUT PHONOGRAPH RECORDS AND ARTISTS are called to our attention by Mr. Grueninger, our record consultant. "The Other Side of the Record," by Charles O'Connell (Alfred A. Knopf, $3.50) is a behind the scenes experience and opinion book based, principally, on the author's 20 years in Victor's Red Seal division. Mr. Grueninger reports that it debunks freely, praises occasionally. "How to Build a Record Library," by Paul Affelder (E. P. Dutton & Co., $3.50) is for the novice who likes the Blue Danube Waltz and asks, What next? Mr. Affelder, director of Columbia's Children's Record and Music Appreciation Departments, lists recordings in graded groups, offers four basic libraries, and describes in simple terms the place the music occupies.

Latest Addition to the Ever-Growing List of Books written from material in CR's files—

More Than Skin Deep by M. C. Phillips of CR's Staff

Special CR Edition (paperbound) $1.75

THIS new book on cosmetics summarizes in one handy volume, conveniently indexed, a wide range of CR's ratings of various cosmetics. It also presents the latest available information in such fields as hormone creams, cold permanent waves, hair dyes, and skin creams. There is a helpful chapter on how to take off excess poundage safely. Off the press the latter part of February, it is available to CR subscribers at a price considerably below that of the regular trade edition.

Use the convenient order blank on the next page to order your copy today!

"Records for Pleasure" (Rutgers University Press, $2.50) is written for "individuals of intelligence," by John Ball, Jr., music editor of the Brooklyn Eagle. The first third of the book offers sound advice, in Mr. Grueninger's opinion, on the purchase and care of records and accessories. The remainder lists and describes, in order of suggested purchase, 200 recordings for every library of serious music.

* * *

VACUDEX, a device to be attached to an auto exhaust pipe for the alleged purpose of saving gasoline, was discussed in CR's February 1943 Bulletin, where its lack of effectiveness for its intended purpose was pointed out. Now we learn that the Federal Trade Commission has ordered the manufacturer to cease and desist from various advertising claims upon which the promotion of this device depended. For example, the company is forbidden to advertise that the device will eliminate or reduce "back pressure," save gasoline or oil, increase the power of the motor or improve its performance, reduce the vibration of the motor, give greater acceleration, cause the motor to run more smoothly or more quietly, or save tires, if attached to an automobile's exhaust pipe. The National Bureau of Standards, which investigated the Vacudex, at the instance of the F.T.C., found that the gadget "can have no appreciable effect upon back pressure" as claimed in the advertising, and that it could have "no measurable effect on fuel consumption, power or engine performance"; further that it did not "improve the performance of an engine in any way." In spite of this finding of the F.T.C., which will seem fully justified to any engineer, we noted not long ago that one of the best known and most respected household furnishing stores in New York City was featuring the Vacudex gadget in one of its main-floor aisles, near the front door.

* * *

NEW OR NEWLY AVAILABLE:

Maid of Honor, Sears-Roebuck's Waterless Cleaner, is marketed in a 5-lb. metal can for 52 cents, plus postage. It is a white paste recommended for use on "painted walls, painted floors, painted woodwork, marble, varnished woodwork, varnished furniture, venetian blinds, kitchen fixtures, linoleum, oil cloth, tile, bath fixtures." On analysis, its composition was found to be 92% water, a little less than 5% soap, 1/2 of 1% sodium carbonate, and nearly 3% trisodium phosphate. Alkalis, such as sodium carbonate and trisodium phosphate, should not be present in a product intended to be used on linoleum or oil cloth, and the percentage was far too high even for a product intended to be used on painted and varnished walls, floors, and woodwork, or on venetian blinds.

Consumers' Research, Inc.
Washington, N. J.

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PHONOGRAPH RECORDS

By Walter F. Grueninger

Please Note: Prices quoted do not include taxes. In the ratings AA indicates highly recommended; A, recommended; B, intermediate; C, not recommended.

ORCHESTRA

Adam: *Giselle*—Excerpts. Orchestra of the Royal Opera House, Covent Garden, under Lambert. 4 sides, Columbia Set X 277. $3.21. This ballet music bores me. Performance satisfactory but the empty chamber causes disturbing echoes. Rather limited frequency range. **Interpretation AA**
Fidelity of Recording B

Bach: *Suite No. 2* (5 sides) & *Fugue in G Minor* (1 side). Pittsburgh Symphony Orchestra under Reiner. Columbia Set 695. $4.41. A grand work, featuring the flute. Performance well varied in dynamics but pace becomes uncommonly fast at times. Though it is transparent, the recording does not hand together, giving the impression of violin and flute in front of one mike, other instruments at another. Quiet surfaces. **Interpretation A**
Fidelity of Recording A

Franck: *Symphonic Variations.* Eileen Joyce (piano) with the Paris Conservatory Orchestra under Münch. Decca set EDA 35. $5. One of Franck's best works. Understatement characterizes the performance. Smooth recording, though not as lifelike as some earlier imported Decca sets. Strongest competition comes from Gieseking's Columbia Set X 10 ($3.01) which offers a more compelling performance, less effective recording, particularly orchestral.
Interpretation A
Fidelity of Recording A

Haydn: *Symphony No. 94* ("Surprise"). Boston Symphony Orchestra under Koussevitzky. 6 sides, RCA Victor Set 1155. $4. A superior Haydn symphony. Played with less nuance than one would expect. Satisfying recording though weak in the bass. Some audible surfaces. Tops competitive Columbia Set 363. **Interpretation A**
Fidelity of Recording A

Mahler: *Symphony No. 5* Philharmonic-Symphony Orchestra of New York under Walter. 16 sides, Columbia Set 718. $10.85. Critics disagree about the merits of this symphony but all acknowledge Walter has no peer as Mahler's interpreter. So far as the fidelity of this "first recording" is concerned—it is alternately smooth, glossy, veiled, scratchy, though never bad. **Interpretation AA**
Fidelity of Recording A

Tchaikovsky: *Nutcracker Suite.* Kostelanetz and His Orchestra. 6 sides, Columbia Set 714. $4.60. Ballet music nearly everyone enjoys. Kostelanetz's somewhat pallid performance with a small orchestra, recorded with plenty of highs but too little bass, is pressed on quiet surfaces. My overall choice of "Nutcrackers" remains Ormandy's RCA Victor Set 1020 which offers a more expressive performance and full-bodied recording of a symphonic orchestra pressed on surfaces not as quiet as Kostelanetz's. **Interpretation A**
Fidelity of Recording A

Tchaikovsky: *Symphony No. 5.* Philharmonic Orchestra under Kletski. 12 sides, Columbia Set 701. $7.01. A traditional, warm, though not especially distinguished, performance of a masterpiece. Smooth British recording. Ormandy's RCA Victor Set 828 offers hefty recording of a straightforward reading and Beecham's Columbia Set 470 remains unique, eloquent, and subtle though less well recorded. Columbia's surfaces are least audible. **Interpretation A**
Fidelity of Recording AA

CONCERTO

Beethoven: *Concerto No. 2.* William Kapell (piano) and the NBC Symphony Orchestra under Golschmann (7 sides) & **Brahms:** *Intermezzo* (Op. 116, No. 6). Kapell (piano) (1 side). RCA Victor Set 1132. $5. The concerto discloses flashes of the style the world admires but even Beethoven did not regard this as one of his best works. Kapell's energetic performance is well supported by the orchestra and handsomely recorded. Compared with competitive Schnabel-soloed RCA Victor Set 295, however, Schnabel makes more of the work and he is rather well recorded in his 11-year-old set on surfaces more quiet than Kapell's. **Interpretation A**
Fidelity of Recording AA

Liszt: *Concerto No. 1.* Rubinstein (piano) and the Dallas Symphony Orchestra under Dorati. 4 sides, RCA Victor Set 1144. $2.85. A rhapsodic display piece of little account. Rubinstein emphasizes the brilliance of the composition. Recording, rather restricted in range, with orchestra frequently too distant. Compared with pompous Sauer-soloed Columbia Set 371 (6 sides) I find the orchestra's performance and the surfaces preferable in Columbia, but on other counts Victor wins. **Interpretation A**
Fidelity of Recording A

INSTRUMENTAL

Beethoven: *Sonata No. 23* ("Appassionata"). Serkin (piano). 6 sides, Columbia Set 711. $4.60. A great sonata. Serkin brings out much of the turbulence without going berserk but he maintains an unusually slow pace in the second movement. Translucent recording. Tops Rubinstein's uneven performance in RCA Victor's 1018 though it does not match his recording and, overall, tops Gieseking's subtle performance, thin recording and noisy surfaces in Columbia Set 365. **Interpretation A**
Fidelity of Recording A

Levant Plays Debussy (piano). 8 sides, Columbia Set 710. $5.85. Is one of your friends a fine amateur pianist? Chances are he plays these Debussy items nearly as well as Levant, not good enough for repeated hearing. Some surfaces swish, others are constantly noisy. Recording lacks wide range.
Interpretation B
Fidelity of Recording B

VOCAL

Chansons. Lily Pons (soprano). 6 sides, Columbia Set 689. $4.41. Lovely art songs by Faure, Bachelet, Milhaud, Duparc, sung in French to the accompaniment, I regret, of an orchestra instead of a piano. Artists of far less prominence sing this music more skillfully. Recording excellent.
Interpretation B
Fidelity of Recording AA

La Rue Pigalle. Edith Piaf (singer). 6 sides, Vox Set VSP 305. $3.75. A gifted, lusty-voiced, French, cabaret, character singer turns to the demi-monde, the Legion, love, etc. Sung in French. Recorded abroad. A few scratchy surfaces.
Interpretation AA
Fidelity of Recording B

Napoli Canta. Francesco Albanese (tenor). 6 sides, Cetra Set 103. $4.50. (Raxor Corp., 24 W. 55, N.Y. 19.) "Santa Lucia," "Passione," "A Canzone'e Capule," and 3 other romantic numbers sung with feeling and style by "Italy's greatest singer of Neopolitan songs." Recorded in Italy, pressed here on good surfaces. Fewer highs than the best domestic jobs but quite satisfactory. **Interpretation AA**
Fidelity of Recording A

Palestine Dances and Songs, Vox Set 191. *Jewish Holiday Dances.* Vox Set 192. Orchestra and Chorus under Goberman. Each, 6 sides, $3.75. Arrangements by Milhaud, Toch, Castelnuovo-Tedesco and others. Principally for those interested in Jewish folk material. Some surface noise.
Interpretation A
Fidelity of Recording A

Times have changed

since a physician wrote
to the publisher of
Skin Deep, a 1935 best seller:

"I am amazed at the lack of knowledge which prevails regarding preparations that are applied to the skin. Many women apply mixtures to their faces that would take the paint off an automobile."

But it is still a good idea to know what cosmetics are safe and what you can expect them to accomplish.

Read the latest book on the subject, by the same author—

More Than Skin Deep

a 200-page book with several delightful illustrations of cosmetic customs of earlier days, fully indexed.

Off the press the latter part of February 1948, this new book brings up-to-date information in the previous volume and presents a wealth of new material and later ratings of cosmetics by brand name.

Here are the chapter headings, to give you some idea of the contents:

I. Cosmetic Arts of Earlier Days, cosmetic fashions and customs in 18th and 19th century America.
II. Selling Glamour, a brief history of cosmetic advertising.
III. Protection for the Unwary, a study of the activities of the Food, Drug, and Cosmetic Administration and the Federal Trade Commission.
IV. Care of the Hair, health measures, waves, shampoos, tonics, and other preparations.
V. Cheating Time, and Health, with Hair Dyes.
VI. Care of the Hands and Nails, hand lotions, nail lacquer and remover.
VII. Heightening the Effect, make-up preparations, powder, rouge, lipstick, eyebrow pencils and eyelash dyes.
VIII. Keeping Dainty, a discussion of depilatories and deodorants.
IX. Preserving the Complexion with Cosmetic Creams.
X. Keeping the Weight Down, reducing preparations and diets.
XI. The Beauty of Cleanliness, how to select toilet soap.
XII. What Cosmetics Will and Will Not Do.

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